

# Compliance and Security Challenges for FinTech Startups



A blue dog Whitepaper



# Compliance and Security Challenges for FinTech Startups

## Executive Summary

The FinTech industry has been on a steady rise in the past few years. It is now so pervasive that the average customer doesn't think twice about using an app for anything related to their money. Electronic payments, banking, insurance, personal loans, and wealth management are just a few examples of what the FinTech industry can streamline, make more efficient and more affordable, as well as more easily accessible.

However, FinTechs – and especially startups in this industry – haven't had an easy road and the future seems to hold even more hurdles. Security and regulations are an interdependent mix that sometimes hits FinTech startups with full force. Unlike their larger counterparts, startups rarely have the resources to tackle these challenges.

This whitepaper will start by discussing the current state of the FinTech industry and the prognosis for the future. The following chapter is dedicated to the compliance and security challenges that FinTechs have to face – now and in the near future. Furthermore, we'll discuss the solutions that can help FinTech startups stay competitive, compliant, and secure.

At Bluedog Security Monitoring, we believe in the democratization of security: everyone should be able to fend off cyber-attacks, not just large companies. This is why the solutions this whitepaper offers are budget-conscious and easily applicable to FinTech startups, whether they are VC-funded or bootstrapped.

## Table of Contents

Executive Summary.....	2
FinTech Startups – a Fast-Growing, Fast-Paced Industry.....	3
Compliance and Security Challenges for FinTech Startups.....	7
Existing and Emerging Compliance Requirements and How They Affect FinTech Startups.....	7
The Bluedog Solution .....	11
Virtual CISO .....	11
About Bluedog Security Monitoring .....	12

Over the past few years, the financial industry has been buzzing about FinTech startups. And for good reason: traditional banks have suddenly found their century-old business model disrupted. As with any industry, especially in the tech space, FinTech was deemed a “bubble”, something that’s going to fizz out soon.

But it didn’t. Not only did the FinTech industry not fizz out, but its adoption increased year after year. 66.7% of bank executives<sup>1</sup> believe that FinTech will impact wallets and mobile payments globally. This is a surprisingly low number, since by 2019, 64% of consumers had already used two or more FinTech services<sup>2</sup>. By 2022, 65.3% of Americans will have used digital banking and 38% of personal loans in the U.S. will be granted by FinTechs<sup>3</sup>.

More importantly, back in 2019, 96% of consumers were aware of at least one FinTech service<sup>4</sup>, which means that a similar number for adoption is closer than we think. COVID-19 spurred the adoption of FinTech so much that 73% of Americans view it as “the new normal”<sup>5</sup>. FinTechs rank very well in trust: 39% of consumers say that the pandemic made them trust FinTechs more for banking operations<sup>6</sup>. This is probably why one in three millennials already think that they might not need a bank at all in the future<sup>7</sup>

It is, thus, no wonder that up to 28% of banking and payment services are at a risk for disruption because of FinTech startups<sup>8</sup>. The same goes for up to 22% of companies in the insurance, asset, and wealth management sectors. As the global FinTech market is expected to grow at a CAGR of 23.58% from 2021 to 2025<sup>9</sup>.

Just how many FinTechs are there?

Well, quite a lot of them:

---

<sup>1</sup> <https://www.statista.com/topics/2404/fintech/>, retrieved March 2021

<sup>2</sup> [https://assets.ey.com/content/dam/ey-sites/ey-com/en\\_gl/topics/banking-and-capital-markets/ey-global-fintech-adoption-index.pdf](https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/banking-and-capital-markets/ey-global-fintech-adoption-index.pdf), retrieved March 2021

<sup>3</sup> <https://www.statista.com/topics/2404/fintech/>, retrieved March 2021

<sup>4</sup> [https://assets.ey.com/content/dam/ey-sites/ey-com/en\\_gl/topics/banking-and-capital-markets/ey-global-fintech-adoption-index.pdf](https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/banking-and-capital-markets/ey-global-fintech-adoption-index.pdf), retrieved March 2021

<sup>5</sup> <https://plaid.com/blog/2020-fintech-effect-covid/>, retrieved March 2021

<sup>6</sup> <https://www.mx.com/infographics/fintech-landscape-amid-covid-19/>, retrieved March 2021

<sup>7</sup> <https://www.pwc.com/gx/en/financial-services/assets/pdf/technology2020-and-beyond.pdf>, retrieved March 2021

<sup>8</sup> Ibidem, retrieved March 2021

<sup>9</sup> <https://www.researchandmarkets.com/reports/5031390/global-fintech-market-by-technology-api-ai>, retrieved March 2021

### 3 Key Fintech Statistics You Should Know

#### 1 Top US fintech startup segments, by number of US bank investors

Source: CB Insights



#### 2 Number of fintech startups by region

Source: Statista



#### 3 Top fintech segments by transaction value, in millions

Source: Statista

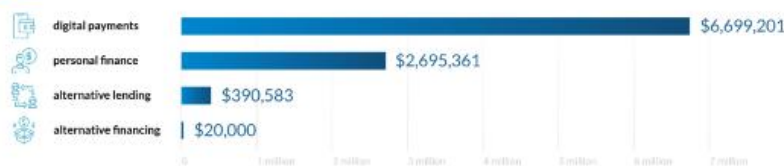
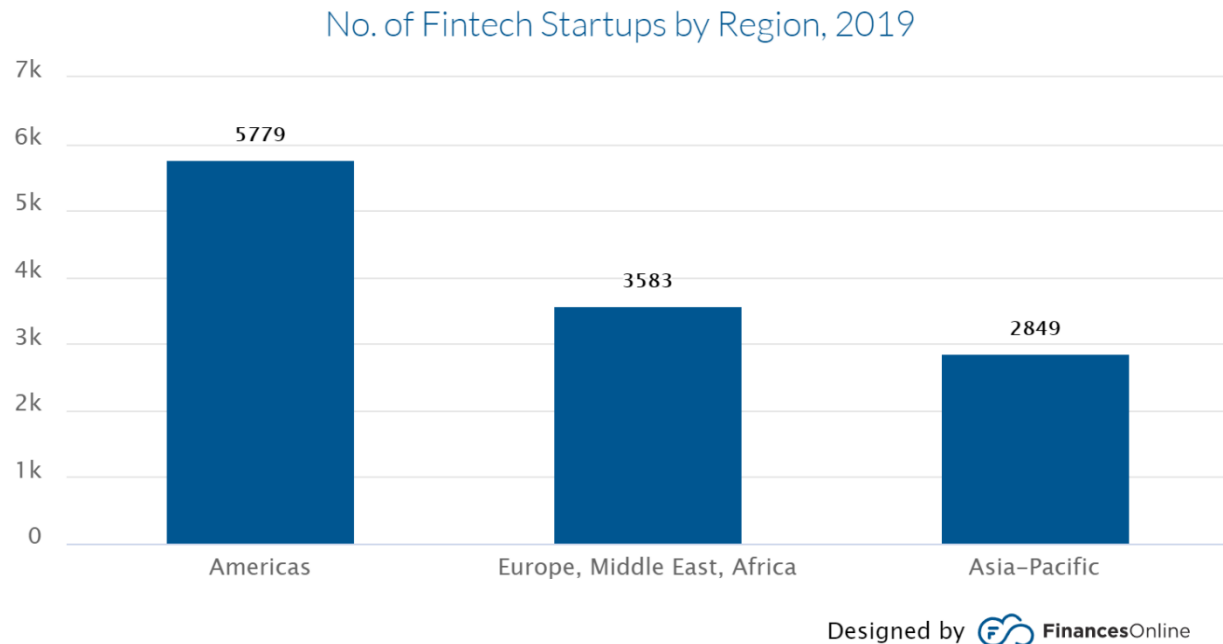


Image source<sup>10</sup>

You may have heard of PayPal, Revolut, Wise, or Venmo – some of the biggest FinTechs in the world. However, they already play in the “giant” league. There are a lot of FinTech startups and it looks like their growth is just beginning:

<sup>10</sup> <https://financesonline.com/fintech-statistics>, retrieved March 2021



*Image source<sup>11</sup>*

On the other hand, Blockchain and regulatory technology (regtech) are the fastest-growing segments of the FinTech industry<sup>12</sup>, which gives us a good idea about how important regulations and compliance will be in the near future. Regtech was estimated to be worth \$120 billion in 2020 with a staggering CAGR of 52.8%.

Regulations and security are the biggest challenges in the FinTech industry. The following chapter explores them in detail.

---

<sup>11</sup> Ibidem, retrieved March 2021

<sup>12</sup> <https://www.grandviewresearch.com/industry-analysis/regulatory-technology-market>, retrieved March 2021

## Compliance and Security Challenges for FinTech Startups

AI in financial services, e-ID to sign transactions, and blockchain in payment technology are just a few examples of how FinTech disrupts the financial industry. FinTech startups live by the “move fast and break things” mantra.

Their goal is to rollout services that people adopt fast and patch any flaws as they go. Everyone expects new products to be imperfect, and FinTech startups know this. However, it seems that the era of “move fast and break things” is going away<sup>13</sup>, at least for VC-backed startups in the financial industry.

Why?

The answer is as short as two words: compliance and security. But this doesn't mean it's a simple one. Quite the opposite, in fact.

### Existing and Emerging Compliance Requirements and How They Affect FinTech Startups

The Cambridge Analytica leaks<sup>14</sup> involving Facebook and quite a few major political actors opened the flood gates to a new era of regulations. To be fair, though, Cambridge Analytica is not the event that started governments on the regulations and compliance road, but it's the one that brought it into the public eye.

The scandal marks the moment when even “laymen” started to be interested in how their data is handled and protected. As one might expect, FinTech companies were on the receiving end of all this scrutiny since they handle the magic mix of data that every hacker is interested in: personal and financial.

One of the regulations that affects FinTechs directly is GDPR<sup>15</sup>. Introduced in 2018, GDPR forces companies across industries to evaluate their routines, processes, and sometimes entire business models to ensure the privacy rights of all EU/EEA citizens. Specifically, GDPR enforces rules on how personal data can be collected, managed, and stored.

---

<sup>13</sup> <https://www.forbes.com/sites/madhvimavadiya/2020/03/19/vc-backed-fintech-companies-can-no-longer-move-fast-and-break-things/?sh=7bcb45ee59d6>, retrieved March 2021

<sup>14</sup> <https://www.wired.com/amp-stories/cambridge-analytica-explainer/>, retrieved March 2021

<sup>15</sup> <https://gdpr-info.eu/>, retrieved March 2021

The regulation enhances the privacy rights of data subjects, as well as specifies the security measures companies should have in place. Failure to comply with the regulation results in fines of up to 20 million Euros or 4% of total worldwide annual turnover from the previous year.

GDPR has implications in both operations models and cybersecurity. Since its introduction, FinTechs, just like companies in other industries, have to ensure that they use secure hosting for the data they collect and store.

Another important security standard that affects the FinTech industry is PCI DSS (Payment Card Industry Security Standard)<sup>16</sup>. PCI DSS is a list of requirements for information security standards for companies who handle cardholders' data. The standard has 12 requirements organized in six groups:

1. Build and maintain a secure network and systems
2. Protect cardholder data
3. Maintain a vulnerability management program
4. Implement strong access control measures
5. Regularly monitor and test networks
6. Maintain an information security policy.

Failure to comply with PCI DSS can bring about monthly fines of up to \$100,000. Of course, it can also damage your brand reputation severely.

PSD2<sup>17</sup> is another European regulation for electronic payment services. Its goal is to make payments more secure, encourage innovation, and help banks adapt to new technology. PSD2 is evidence of the increasing importance Application Program Interfaces (APIs) are acquiring in different financial sectors.

The deadline for PSD2 compliance has been extended several times because banks found it hard to meet the standards<sup>18</sup>.

---

<sup>16</sup> <https://www.pcisecuritystandards.org/>, retrieved March 2021

<sup>17</sup> <https://www.bbva.com/en/everything-need-know-psd2/>, retrieved March 2021

<sup>18</sup> <https://www.thalesgroup.com/en/markets/digital-identity-and-security/banking-payment/digital-banking/psd2>, retrieved March 2021



As a KPMG report points out, “FinTech is moving rapidly from “under the regulatory radar” and is attracting growing regulatory responses and supervisory scrutiny. The list of regulatory and supervisory responses to FinTech-related risks continues to lengthen”<sup>19</sup>.

Irrespective of the niche they’re in, FinTechs can expect new regulations at any moment:

**Main regulatory responses to emerging technologies and fintech solutions**

	Changing the regulatory perimeter	Disclosures to consumers	Limits on retail investor access	Governance of firms	Firms' risk management	Operational resilience of firms	Data protection	AML	Concentration and competition
Crypto assets	✓	✓	✓					✓	
Distributed ledger technology					✓	✓	✓		✓
Cloud computing					✓	✓	✓		✓
Crowdfunding	✓	✓	✓	✓	✓				
Payment systems	✓	✓		✓	✓	✓	✓		✓
Artificial intelligence, machine learning and use of big data		✓		✓	✓		✓		✓

✓ : Denotes the main types of regulation that are being introduced in response to each type of fintech development.

Image source<sup>20</sup>

Most of the regulations to be introduced are related to security. FinTech companies are, without a doubt, the most susceptible to cyber-attacks. 70% of companies in the financial industry reported an attack within the last 12 months<sup>21</sup>. This is the reason why, according to International Data Corporation (IDC)<sup>22</sup>, worldwide spending on security solutions is expected to reach \$151.2 billion by 2023.

<sup>19</sup> <https://assets.kpmg/content/dam/kpmg/xx/pdf/2019/03/regulation-and-supervision-of-fintech.pdf>, retrieved March 2021

<sup>20</sup> Ibidem, retrieved March 2021

<sup>21</sup> <https://www.darkreading.com/attacks-breaches/70--of-financial-companies-suffered-a-cybersecurity-incident-in-the-past-12-months/d/d-id/1335541>, retrieved March 2021

<sup>22</sup> <https://www.businesswire.com/news/home/20191016005057/en/New-IDC-Spending-Guide-Sees-Solid-Growth>, retrieved March 2021

However, security is still a problem in the FinTech industry, with 56% of companies who think they are good at threat detection, but only a little over 30% are also good at threat prevention<sup>23</sup>.

*If you need more numbers on the current state of security in the FinTech industry, you can download our whitepaper [The State of Cybersecurity in Financial Services](#)<sup>24</sup>.*

The FinTech industry spends a lot of money on cybersecurity and compliance. This is not about to change anytime soon – quite the opposite. As cybercrime rates grow, so is the financial sector’s expenditure on mitigating it.

What will happen to FinTech startups then? They don’t have the resources large banks and corporations do. Will they be doomed to failure without VC backing?

Not really. In fact, their safest play is to bet on their size, which allows them to be more agile than large companies and adopt new security measures faster. Bluedog’s services and products are designed for companies with an innovative core, just like the ones in FinTech. The following chapter will explore how FinTech startups can move fast without breaking things in their security.

---

<sup>23</sup> <https://www.prnewswire.com/news-releases/synopsys-and-ponemon-release-new-study-highlighting-software-security-practices-and-challenges-in-the-financial-services-industry-300894781.html>, retrieved March 2021.

<sup>24</sup> <https://bluedog-security.com/whitepapers/>, retrieved March 2021

## The Bluedog Solution

The average cost of a breach is \$8.9 million<sup>25</sup>. This is why financial companies spend \$180.9 billion on financial crime compliance<sup>26</sup>.

This number may sound scary. To a lot of FinTech startups it really is, even though they are only “liable” for a small percentage of that sum. However, at Bluedog we believe that security and compliance for FinTechs shouldn’t cost an arm and a leg. Meet our solutions that can make security and compliance easy and affordable.

## Virtual CISO

You probably know how expensive security professionals are and, more importantly, how scarce they are. If not, we highly recommend our *Skills Shortages in Cyber Security* whitepaper<sup>27</sup>.

The Virtual CISO<sup>28</sup> service by Bluedog is designed to help you get all the benefits of a highly-skilled Chief Information Security Officer at a fraction of the cost of an in-house hire. Whenever you are required to ensure your company is acting in accordance with compliance guidelines like ISO 27001, SOC2 or PCI-DSS, our Virtual CISO service is the ideal solution.

It acts as an extension of your in-house resources coupled with an in-depth understanding of your business and industry. The Bluedog virtual CISO helps you with:

- Risk assessment
- Company policies and procedures review and governance
- Making sure that the right controls are in place to demonstrate your compliance with various standards.

---

<sup>25</sup> <https://www.ibm.com/security/data-breach>, retrieved March 2021

<sup>26</sup> <https://thefintechtimes.com/financial-services-firms-spend-180-9-billion-on-financial-crime-compliance-according-to-lexisnexis-risk-solutions-global-study-report/>, retrieved March 2021

<sup>27</sup> <https://bluedog-security.com/whitepaper-skill-shortage/>, retrieved March 2021

<sup>28</sup> <https://bluedog-security.com/virtual-ciso/>, retrieved March 2021

## About Bluedog Security Monitoring

Our goal is to provide businesses with a level of network protection typically only afforded by large corporations. We aim to bring high-quality technology, support, and service to the small to medium business, helping protect their business from cyber threats.

Our company is growing quickly, through our simple and affordable end-to-end network monitoring solution. Recently voted one of the Top 10 cybersecurity start-ups of 2019 by Enterprise Security Magazine. Whether you are a small business, or an MSP or IT services reseller or distributor, get in touch and have a chat with us.

**20-22 Wenlock Road, London, N1 7GU**

**[info@bluedogsec.com](mailto:info@bluedogsec.com)**

**+44 20 8819 6254**