

The AI and deepfake fraud threat is growing. How does your defense strategy stack up?

AI fraud security self-assessment
for financial services leaders

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The deepfake threat is real

The rise of deepfakes is changing the game for financial institutions. As AI-powered fraud grows more sophisticated, the question isn't if you'll be targeted — it's whether your defenses are ready.

780%

Deepfake attacks on financial service providers increased by **780%** over the past year¹

\$40B

AI-generated fraud attacks may cost the Finance industry **\$40 billion** by 2027²

43%

43% of UK and US businesses have already been targeted by a deepfake attack³

The 5 layers of deepfake protection

The rise of deepfake attacks raises a key question for financial service organizations: Are our defenses up to the task? This quick self-assessment helps you identify where you stand in 5 key areas, and which capabilities you can leverage to close the gap.

1. **Multi-Factor Authentication**
2. **Liveness Detection**
3. **AI-fraud detection**
4. **Employee Training**
5. **Cross-Channel Security**

Multi-Factor Authentication (MFA)

Are your authentication layers keeping pace with AI-powered fraud tactics?

Your current status	What it means	Why it matters
<input type="checkbox"/> No MFA	Very high vulnerability to AI attacks	Without MFA, even a single stolen password can lead to total account takeover
<input type="checkbox"/> Basic MFA	Limited protection with password + SMS, for example	Basic MFA is increasingly bypassed by deepfake-powered phishing and social engineering attacks
<input type="checkbox"/> Advanced MFA	Strong, layered defenses, including hardware tokens and authenticator apps	Combines knowledge, possession and biometric/behavioral factors

Weak MFA is an open invitation for AI fraudsters. Financial institutions must go beyond outdated methods. Thales offers **adaptive authentication** built on our decades of identity expertise. Our solutions integrate **biometrics**, **behavioral analytics** and **device-based factors** to make fraud detection seamless and secure.

1 Source: [Clifford Chance](#)
2 Source: [Deloitte](#)
3 Source: [Cybersecurity Dive](#)

Liveness Detection

Can your system tell the difference between a real customer and a synthetic fake?

Your current status	What it means	Why it matters
<input type="checkbox"/> No detection	High exposure to deepfake injection attacks	Attackers can use synthetic images or pre-recorded videos to bypass facial recognition
<input type="checkbox"/> Manual checks or passive detection	Inefficient and error-prone	Leaves room for human error and does not scale across channels
<input type="checkbox"/> AI-powered liveness detection	Dynamic, real-time verification	Identifies subtle signs of liveness, like mouse movement, typing speed and navigation habits

The rise of deepfake technology has created a new era of fraud, where criminals are able to easily bypass traditional identity checks by using hyper-realistic AI-generated faces and voices. Basic liveness detection like blink or motion detection can no longer keep up, as deepfakes and synthetic images can convincingly mimic human behavior.

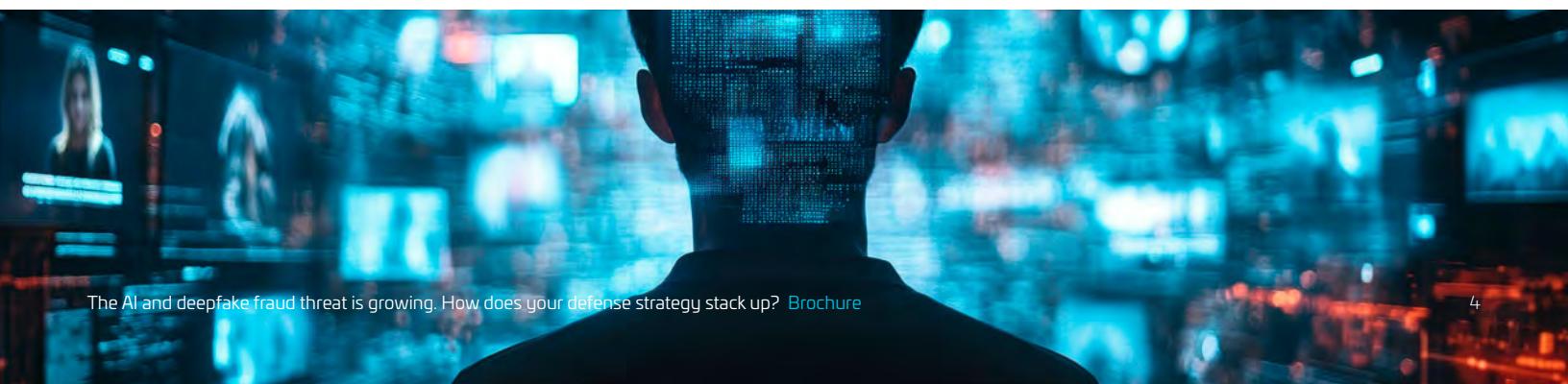
Thales's **liveness detection** and **3D face mapping** leverage AI to instantly **confirm presence, intent, and identity**, analyzing subtle biometric signals humans and older systems may miss. Beyond stopping traditional spoofing, Thales employs advanced **injection and presentation attack prevention** - blocking synthetic data streams and deepfake presentations - to help high-security organizations stay ahead of even the most cutting-edge, AI-driven fraud.

AI Fraud Detection

Are you using AI to fight AI?

Your current status	What it means	Why it matters
<input type="checkbox"/> No AI detection tools	High risk from emerging threats	Traditional tools can't keep up with evolving fraud patterns
<input type="checkbox"/> Rule-based or siloed systems	Reactive defense posture	May detect fraud late or miss it entirely
<input type="checkbox"/> AI-driven detection & risk scoring	Proactive, adaptive response	Continuously learns and flags suspicious patterns in real-time

In the world of digital banking, every second counts when it comes to fraud prevention. And if you're relying on static fraud detection rules, you might already be behind. Thales applies **AI and machine learning** to **detect anomalous behaviors across devices, channels and sessions** – before attackers have a chance to do harm. With Thales solutions in place, banks can stay one step ahead of fraudsters, protecting their bottom line and maintaining customer trust.



Employee Training

Does your workforce know how to spot deepfakes and fraud attempts?

Your current status	What it means	Why it matters
<input type="checkbox"/> No AI fraud-prevention training	High risk from emerging threats	Traditional tools can't keep up with evolving fraud patterns
<input type="checkbox"/> Basic annual training	May be out of touch with new fraud tactics	Cybercrime constantly evolves – training must keep up
<input type="checkbox"/> Ongoing, targeted awareness programs	A powerful human “firewall” against AI fraud	Keeps employees alert and adaptive to evolving social engineering and impersonation threats

Technology is only part of the solution. Educated employees are your first line of defense. Thales helps institutions implement **customised training programs** that evolve with the threat landscape.

Don't leave your defense to chance, empower your people with the right tools and knowledge to fight back.

Cross-Channel Security

Is your fraud strategy a patchwork or a unified defense?

Your current status	What it means	Why it matters
<input type="checkbox"/> Not integrated	Siloed and inconsistent	Fraudsters exploit weak points between systems
<input type="checkbox"/> Partially integrated	Some protection, some exposure	Gaps in coverage leave room for infiltration
<input type="checkbox"/> Fully integrated security architecture	End-to-end fraud prevention with built-in protection against AI fraud and deepfakes	Proactive defenses from onboarding to support and transactions

Disconnected tools and point solutions leave organizations vulnerable. The **Thales OneWelcome Identity Platform** integrates **identity verification, authentication** and **real-time fraud analytics** into a seamless, end-to-end framework for maximum security at every user touchpoint.

Fraud evolves fast. Thales can help you stay ahead.

Which layers of AI fraud protection does your organization need to improve?

Whether it's digital onboarding, stronger authentication or building AI-aware defenses, Thales offers deep experience and innovative solutions that financial institutions around the world trust. Our tools build trust, ensure compliance and prepare organizations for future threats.

Get your security strategy in the green with Thales:

- Strong MFA
- Real-time liveness detection
- Advanced injection and presentation attack detection
- AI-powered fraud detection
- Employee training and awareness
- Integrated security architecture

Not there yet? Let us help.

Thales is a trusted security partner to thousands of organizations worldwide. The **Thales OneWelcome Identity Platform** offers secure authentication for tens of millions of users in Europe alone. With over 30 years of experience, we deliver tools that are modular, integrated and built for the complexities of BFSI.

Explore how Thales keeps financial services organizations safe from AI and deepfake fraud at every step of the user journey.

[Discover CIAM solutions from Thales](#)

About Thales

As the world leader in identity and biometric security solutions, Thales serves governments, public authorities and private entities in the fields of civil identity and public security. Our expertise and technology underpin secure documents such as passports, ID cards, and driver licenses that are at the heart of ID schemes. We also provide solutions for verifying identities of individuals when crossing borders, being enrolled in national registers, boarding planes, trains or cruise liners, visiting critical infrastructures and sensitive sites, opening bank accounts, renting or leasing cars, checking into hotels and many other occasions.





Contact us

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