

# Navigating the future of fraud prevention

Advanced, multi-layered security strategies for financial services providers

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# AI has changed the fraud landscape

As generative AI evolves, it exposes financial institutions to a new generation of threats. Deepfakes, synthetic identities and advanced spoofing tactics are targeting digital onboarding and remote verification with alarming precision.

GenAI attacks are a major cybersecurity concern for 47% of global organisations<sup>1</sup>

GenAI phishing attacks are at least as effective as human attacks, but 95% cheaper for attackers to deploy<sup>2</sup>

For financial service providers, the average cost of a data breach is \$6 million<sup>3</sup>

Traditional fraud protection is not enough to keep financial service providers safe from AI-driven threats. It takes a layered defense strategy that incorporates security, compliance and customer experience. Thales helps your organization put the right building blocks in place.

## The building blocks of next-gen fraud prevention

Building block	What it is	Example scenario	How Thales helps
<b>Multi-Factor Authentication (MFA)</b>	Adds layers beyond passwords to confirm user identity.	A fraudster may use a deepfake to mimic a customer's face, but will fail to pass the second authentication step (for example, a hardware token or biometric prompt).	<b>Thales OneWelcome Identity Platform:</b> Supports OTP, PKI, FIDO and risk-based authentication.  <b>Thales Authenticators:</b> Includes mobile, virtual, and physical options (smart cards, tokens).
<b>Behavioral Biometrics</b>	Analyzes user behavior patterns to detect anomalies.	A fraudster's mouse movements or typing cadence do not match the legitimate user's, which triggers a risk alert.	<b>Thales Behavioral Biometrics:</b> Continuously monitors patterns like typing speed, touch gestures, and mouse navigation.
<b>Injection Detection</b>	Identifies artifacts or inconsistencies introduced during deepfake creation.	An attacker tries to impersonate a user using a AI-manipulated video. The system rejects it due to a lack of real-time cues.	<b>Metadata Detection:</b> Analyzes video metadata for signs of manipulation.  <b>Thales Behavioral Biometrics:</b> Identifies unnatural blinking patterns or facial movements.
<b>Presentation Detection (1)</b>	Verifies that a live person (not a video, photo or mask) is present during ID verification.	An attacker tries to use a pre-recorded deepfake video to pass facial recognition. The system rejects it due to a lack of real-time cues.	<b>Thales Liveness Detection:</b> Ensures the subject is a living person, not a static image or video.

1 Source: [World Economic Forum](#)

2 Source: [Harvard Business Review](#)

3 Source: [FinTech Magazine](#)

Building block	What it is	Example scenario	How Thales helps
<b>Presentation Detection (2)</b>	Verifies that a live person (not a video, photo or mask) is present during ID verification.	An attacker tries to use a pre-recorded deepfake video to pass facial recognition. The system rejects it due to a lack of real-time cues.	<b>Thales Texture Analysis:</b> Examines skin texture and other fine details that may be lost in deepfakes.  <b>Thales Behavioral Biometrics:</b> Analyzes unique patterns in a person's movements or speech.
<b>Risk Management</b>	Uses machine learning to flag suspicious activity in real time.	A user initiates a large transaction from an unfamiliar device or unusual location. The system automatically increases authentication requirements.	<b>Thales Fraud &amp; Risk Management:</b> Applies ML to continuously assess risk levels and adapt protection dynamically.
<b>Compliance Alignment</b>	Ensures identity and fraud controls meet global and regional regulatory standards.	A global bank must align onboarding practices with GDPR, PSD2 and AML directives.	<b>Thales CIAM Solutions:</b> Built for compliance across jurisdictions, with strong auditability and adaptive policy control.

## There's no one-size-fits-all approach to fraud prevention

A strong strategy requires layered defenses that work in harmony. When combined, these capabilities create a seamless, resilient system that prevents fraud without degrading the customer experience.

With a tailored security strategy with Thales, you can:

- Eliminate data silos
- Close critical security gaps
- Scale securely across all customer channels
- Protect your organization's assets – and its reputation





## Which AI fraud challenges does Thales solve?

Challenge	Advanced MFA	Behavioral Biometrics	Liveness Detection	Real-time Fraud Prevention
Regulatory Compliance (PSD2, GDPR etc.)	✓	✓	✓	✓
Deepfake Fraud	✓	✓	✓	✓
Synthetic Identity Fraud	✓	✓	✓	✓
Spoofing Attacks	✓	✓	✓	✓
Identity Theft	✓	✓	✓	✓
Remote ID Verification Manipulation	✓	✓	✓	✓
Account Takeover	✓	✓	✓	✓
Phishing Attacks	✓	✓	✓	✓

## Choose Thales as your all-in-one fraud prevention partner

With over 30 years of cybersecurity expertise, Thales is the trusted partner of choice for thousands of organizations worldwide. Our advanced fraud prevention technologies, combined with the scalable, flexible Thales OneWelcome Identity platform, provide forward-thinking financial institutions with the tools they need to stay ahead of evolving threats.

Whether you're looking for individual modules, strategic guidance, or a fully integrated CIAM solution, Thales empowers you to tailor your defenses without compromising on security, compliance, or user experience. Seamlessly integrate our capabilities into your existing systems, safeguard sensitive interactions, and build lasting customer trust—all from a single, proven partner.

## Discover future-proof identity security from Thales

Our identity experts can help you close security gaps, simplify your strategy and stay ahead of AI-generated fraud threats.

[Dive deeper in our latest blog article](#) and [contact us today](#) to learn more.

## About Thales

As a global leader in cybersecurity, Thales safeguards sensitive data, identities, applications, and software for the most trusted brands in the world. Through advanced encryption, identity access management, application security, and software entitlement, Thales secures cloud environments, defends against cyber threats, ensures compliance, and enables trusted digital experiences.



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