AI-powered threat detection is missing in action

Phishing attacks have evolved. They're faster, more personalized, and increasingly generated by AI. Attackers now use generative AI to craft messages that mimic the tone, structure, and urgency of real communication. They're going beyond the executive team to target billing teams, HR, and clinicians with surgical precision.

> "We've seen email threats evolve faster than many tools meant to stop them. It's not just about phishing anymore—it's about deception at scale."
>
> **Hoala Greevy,**
> CEO, Paubox

Rules-based filters still form an essential baseline—establishing a necessary first layer of defense. However, 44% of healthcare organizations stop here, relying solely on legacy solutions.

This leaves critical gaps in their defenses, as these systems alone can't match the sophistication and adaptability of AI-generated threats.

Attackers are scraping LinkedIn profiles and crafting spoofed messages that bypass outdated logic entirely. Proactive solutions, such as Paubox Email Suite Plus, build on this foundation with AI-powered threat detection, adding a crucial second layer that significantly enhances protection.

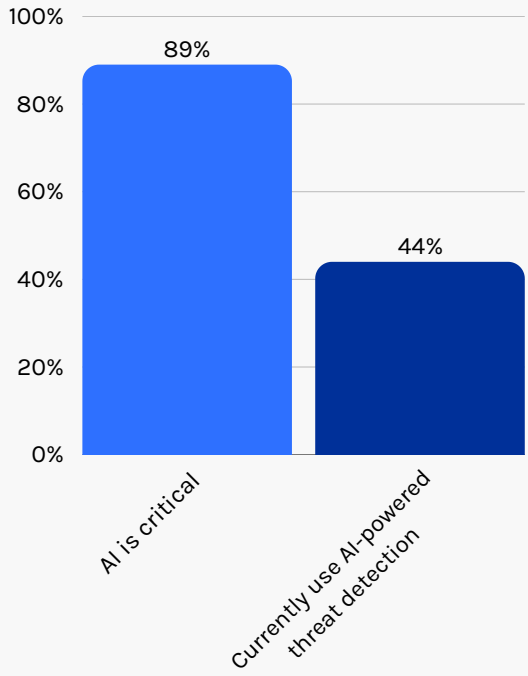
89% of healthcare IT leaders identified AI and machine learning as critical for detecting email threats. But knowing it's important and implementing it are two very different things.

> “Cybercriminals are exploiting the biggest vulnerability within any organisation: humans. As progress in artificial intelligence (AI) and analytics continues to advance, hackers will find more inventive and effective ways to capitalise on human weakness in areas of (mis)trust, the desire for expediency, and convenient rewards.”[1]
>
> **Amy Larson DeCarlo,**
> Principal Analyst, Global Data

If your organization still relies on static filters, you’re a prime target. We’ve seen email attacks slip through tools that should have caught them.

One organization’s system flagged 200+ marketing emails as threats, but if not for the advanced detection solution in place, would have missed a spoofed email impersonating the CFO which could have been a $70,000 miss.

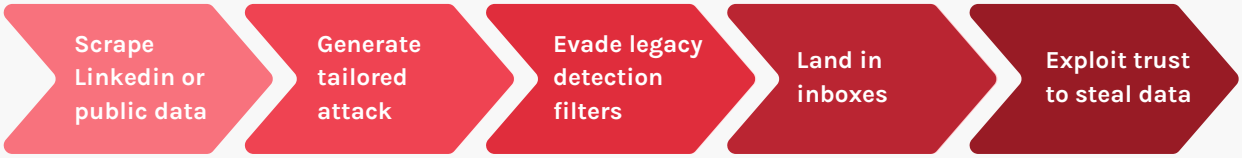
AI THREAT DETECTION
PERCEPTION VS. ADOPTION



KEY TAKEAWAY

If your email security plan doesn’t already include AI, you’re giving attackers a head start.

ANATOMY OF AN AI-POWERED PHISHING ATTACK



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