KT AI voice phishing detection

IMPLEMENTED 2024–2026 · TELECOMMUNICATIONS · SOUTH KOREA · BAND C · CLAIMED ONLY
VERSION 1.0 · PUBLISHED 16 NOVEMBER 2026 · UPDATED 16 NOVEMBER 2026 · FACTS CHECKED 16 NOVEMBER 2026

A Korean telecoms operator launched on-device AI that analyses calls in real time and warns customers of likely voice phishing, later adding voice matching against known fraudsters after a privacy regulator's review.

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NOTICE WORDING LAST UPDATED 16 NOVEMBER 2026

AT A GLANCE

AI used: On-device AI analysing call content, plus speaker recognition and synthetic voice detection.

Implemented: 2024–2026. Grade: band C, Process change, Claimed only.

Headline result, as reported: Detection accuracy rose from 90.3% to 97.2% during 2025 and an estimated ₩71 billion of losses were prevented in the first half of 2025, by KT's own analysis

1 · The case

The facts, as reported by the 5 sources listed at the end. Where a source is silent, the field says "Not reported".

Organisation

KT Corporation. South Korean telecoms operator. The service runs through the 'whowho' app, available to customers of any carrier, on Samsung Galaxy S23 or later phones for version 2.0. Canvas block: 3. Customers and proposition. Also 6. Data and technology, 8. Governance and risk.

Business challenge

The challenge. Voice phishing in South Korea rose to 20,839 cases and ₩854.5 billion of losses in 2024, per police statistics relayed by Etoday, and to about ₩1.2 trillion in 2025, per government figures relayed by Dealsite. KT says earlier responses focused on recovery after the loss.

How it was addressed. In January 2025 KT launched a service in which AI analyses call content in real time, judges whether it is voice phishing and alerts the customer. In 2025 KT gave the

Who implemented it

In-house (In-house): KT Corporation: developed the detection technology.
National Forensic Service (University or research lab): Supplied voice phishing call data used under a regulatory sandbox.
Kbank (Industry partner): Receives real-time detection information for withdrawal holds.

Technology (SEAM pillar E)

SEAM types: T8 Predictive / ML models. Deployment: Not reported. Vendors and products: AI voice phishing detection service 2.0, whowho app.

Where it was built in: Runs on customers' phones in the whowho app; alerts customers during calls; detection data shared with Seoul police, Kbank and banks' fraud detection systems.

What changed

Before: protection relied on blocking known numbers and recovering losses afterwards. After: calls are scored during the conversation, customers are warned, and detection data can trigger police contact or bank withdrawal holds, by KT's account. [1] [2] [3] [4] [5]

What it cost

Not reported.

What it saved

By KT's estimates: about ₩16 billion of losses prevented in early 2025 from 1,528 analysed calls, valued at the 2024 average loss per case, plus ₩2.01 billion through police follow-up; about ₩71 billion in the first half of 2025. These are KT's own calculations. [1] [2] [3] [4] [5]

Governance and control

The Personal Information Protection Commission reviewed the service structure, data flows, rights of data subjects and safeguards for ten months and completed its implementation check before the July 2025 launch. Voice matching runs on the device. KT reported false alarms on legitimate billing calls and said it would update its AI engine and whitelists.

S2 · Accountable owner · Claimed
Lee Hyun-seok, head of KT's Customer division, spoke for version 2.0; a named owner for model accuracy is not reported. [4]

A1 · Safe use · Claimed
Call analysis runs on the device to reduce privacy risk, and fraudsters' voice data was extracted so it cannot be restored, by the accounts relayed. [3] [5]

A2 · Human in the loop · Claimed
The AI alerts the customer, who decides whether to end the call; KT passed suspect cases to Seoul police, who contacted potential victims, by KT's account. [1] [2]

A3 · Monitoring and assurance · Claimed
KT measured accuracy on flagged calls, reported false alarms on billing calls and planned engine and whitelist updates. [2]

A4 · Vendor AI · Not reported
Not reported.

A5 · Agent controls · Not reported
No agents described.

A6 · Standards and regulation · Outside scrutiny (a regulator, court, auditor or similar body acted)
The ICT regulatory sandbox designated the voice-matching service in October 2024 and the Personal Information Protection Commission completed an implementation check before launch. [3]

What worked, what did not, what is unproven

WORKED

– Accuracy rising from 90.3% to 97.2% over 2025, by KT's account.

– Links to police and banks so a warning can lead to action, by KT's account.

DID NOT

– False alarms on legitimate billing and payment calls in the first months, by KT's account.

UNPROVEN

– Loss-prevention figures, which are KT's estimates based on average loss per case and have not been independently checked.

– Whether the ₩200 billion a year target is being met.

Timeline

Jan 2025 KT launches AI voice phishing detection and alert service after a beta with about 100 staff experts and customers [1]

Apr 2025 KT reports 90.3% accuracy on 1,528 analysed calls, some false alarms on billing calls, and links detection to Kbank [2]

Jul 2025 Personal Information Protection Commission completes its implementation check; version 2.0 with voice matching and deepfake voice detection launched [3]

Sept 2026 KT says 2025 accuracy rose to 97.2% by the fourth quarter [5]

2 · Grade and SEAM assessment

MarLuc's opinion, made on the evidence above. How cases are graded: marluc.co.uk/case-studies/how-we-rate

Level of change and impact

Claimed: Not applicable. Grade: C, Process change. Proof: Claimed only. Level of change: Process change.

Process change (Level 2, band C). Fraud protection moved from blocking and recovery to real-time detection during calls, linked to police and banks.

The SEAM view and lessons learnt

The service is built to join three parties: the operator's detection, police follow-up and banks' fraud systems, by KT's account. A regulator's privacy review came before the voice-matching launch. The published results are the operator's own estimates, so an independent check of

1. Link AI alerts to the people who can act on them, such as police and banks.
2. Track false alarms on legitimate calls from the first week.
3. Agree privacy controls with the regulator before using biometric data.

Evidence

Score 1 of 4. Self-reported: accuracy and loss-prevention figures are KT's own analysis, relayed by Korean press; the regulator's review covered privacy, not results.

Evaluation method. Self-reported company figures: accuracy on flagged calls and estimated losses prevented using average loss per case.

Sources disagree. Etoday's April 2025 headline gives ₩18 billion prevented in two months; the body gives about ₩16 billion from detection plus ₩2.01 billion through police follow-up.

Status. Ongoing: version 2.0 in service; the government plans a joint AI voice phishing response platform for 2026 to 2027, per Dealsite.

3 · Original sources

Read these in full. To challenge a fact or a grade, use the contact form at marluc.co.uk or the link on https://marluc.co.uk/case-studies/kt-ai-voice-phishing-detection

[1] Newspim: KT commercialises AI voice phishing detection service (Korean, January 2025)
https://newspim.com/news/view/20250122000499

[2] Etoday: KT's voice phishing AI blocked ₩18 billion of losses in two months (Korean, April 2025)
https://www.etoday.co.kr/news/view/2459615

[3] Etoday: Government and KT join forces on AI that catches altered voices (Korean, July 2025)
https://www.etoday.co.kr/news/view/2492072

[4] BizWatch: KT catches voice phishers' voices too (Korean, July 2025)
https://news.bizwatch.co.kr/article/mobile/2025/07/29/0010

[5] Dealsite: Telecom operators under pressure from AI voice phishing (Korean, September 2026)
https://dealsite.co.kr/articles/169548

KT Corporation website: https://www.kt.com

Version 1.0 · Published 16 November 2026 · Updated 16 November 2026 · Facts checked against sources 16 November 2026 · Downloaded 26 November 2026. This PDF may be out of date: the latest version, and a way to report an error or a better source, is at https://marluc.co.uk/case-studies/kt-ai-voice-phishing-detection

VERSION HISTORY

v1.0 16 November 2026 First published