# Google's Gemini Nano AI boosts Chrome and Android security against tech support scams



## Google Deploys AI Arsenal to Combat Tech Support Scams

In a significant advancement of its cybersecurity initiatives, Google is harnessing artificial intelligence within its Chrome browser to proactively combat the rising threat of tech support scams. The introduction of Gemini Nano, a lightweight AI model, marks a pivotal moment in the company's approach to online security, as it allows for real-time detection of deceptive scam websites directly within the browser environment.

Royal Hansen, Google’s Vice President of Privacy, Safety and Security Engineering, stated in a company blog post, “We’re using our AI models to identify tech support scams at the time they’re happening.” This innovative approach aims to safeguard users from scammers employing tactics designed to frighten them into paying for fraudulent technical assistance. The decision to implement Gemini Nano augments Chrome’s Enhanced Protection mode, a feature already trusted by over 150 million users worldwide.

The on-device AI analytics manifest a commitment to privacy, as described by Parisa Tabriz, Vice President of the Chrome Browser. She explained that the technology runs directly on users' devices, facilitating rapid content analysis without transmitting sensitive data to Google’s servers. This local processing reinforces user privacy while maintaining an effective line of defence against such scams.

As the prevalence of these fraudulent schemes continues to escalate, Google has reported blocking approximately 1.9 billion unwanted ads in 2023 alone, which include over 100 million related to tech support deception. The company's efforts reflect growing concerns regarding online safety, particularly as scammers increasingly adopt sophisticated techniques to lure victims. These tactics often involve the use of genuine branding or content to mislead unsuspecting users.

In tandem with the improvements in Chrome, Google is extending its AI capabilities to mobile platforms. Enhanced notification warnings are set to alert Android users when websites attempt to deliver potentially unwanted notifications. This feature is poised to create a more robust user experience while proactively combating threats across devices. Furthermore, Google’s foray into AI-powered scam detection is broadening to include warnings in search results, focusing on high-risk areas such as cryptocurrency schemes and dubious financial opportunities.

Dave Kleidermacher, Vice President of Engineering for Android Security & Privacy, highlighted this in remarks reported by CNN, stating, “We’re focusing on scams where the financial or personal harm can be substantial.” Industry analysts observe that Google's initiative exemplifies a larger trend among technology giants employing AI to enhance security protocols, recognising an essential balance between effective protection and user privacy.

A noteworthy aspect of Gemini Nano is its incorporation within a secure environment known as the Private Compute Core. This architecture ensures data isolation and compliance with stringent privacy standards, which is crucial in an era where cloud-based AI systems face scrutiny for potential privacy violations. This local processing capability not only improves speed and efficiency but also alleviates concerns surrounding user data vulnerabilities associated with traditional server-based systems.

While this feature currently operates under Chrome’s Enhanced Protection mode—requiring users to opt-in—Google has announced plans for broader deployment in the future. The gradual rollout of Gemini Nano signifies a strategic effort to further integrate AI-driven security measures across its software ecosystem, potentially enhancing user trust and safety.

As Google navigates these complex challenges, the emphasis on a privacy-centric approach will be critical. The delicate balance of leveraging AI for protective measures while maintaining stringent privacy standards is a theme likely to gain prominence in discussions around technological advancements.

## Reference Map:

* Paragraph 1 – [[1]](https://www.webpronews.com/chromes-new-gemini-nano-ai-fights-tech-support-scams-while-protecting-your-privacy/), [[2]](https://android-developers.googleblog.com/2024/10/introduction-to-privacy-and-safety-for-gemini-nano.html)
* Paragraph 2 – [[1]](https://www.webpronews.com/chromes-new-gemini-nano-ai-fights-tech-support-scams-while-protecting-your-privacy/)
* Paragraph 3 – [[1]](https://www.webpronews.com/chromes-new-gemini-nano-ai-fights-tech-support-scams-while-protecting-your-privacy/), [[3]](https://www.livemint.com/technology/tech-news/google-issues-big-warning-for-all-gemini-ai-users-please-dont-enter-confidential-11707808973924.html)
* Paragraph 4 – [[1]](https://www.webpronews.com/chromes-new-gemini-nano-ai-fights-tech-support-scams-while-protecting-your-privacy/), [[6]](https://www.inc.com/jennifer-conrad/googles-newest-ai-can-listen-in-on-calls-to-detect-scammers.html)
* Paragraph 5 – [[1]](https://www.webpronews.com/chromes-new-gemini-nano-ai-fights-tech-support-scams-while-protecting-your-privacy/), [[5]](https://www.news9live.com/technology/tech-news/google-i-o-2024-android-gets-ai-powered-scam-alert-feature-that-works-during-phone-calls-2538082)
* Paragraph 6 – [[2]](https://android-developers.googleblog.com/2024/10/introduction-to-privacy-and-safety-for-gemini-nano.html), [[4]](https://www.forbes.com/sites/zakdoffman/2024/05/17/google-teases-free-ai-upgrade-for-samsung-pixel-android-users/), [[7]](https://www.bleepingcomputer.com/news/google/google-says-its-focusing-on-privacy-with-gemini-ai-on-android/)
* Paragraph 7 – [[1]](https://www.webpronews.com/chromes-new-gemini-nano-ai-fights-tech-support-scams-while-protecting-your-privacy/), [[5]](https://www.news9live.com/technology/tech-news/google-i-o-2024-android-gets-ai-powered-scam-alert-feature-that-works-during-phone-calls-2538082)
* Paragraph 8 – [[1]](https://www.webpronews.com/chromes-new-gemini-nano-ai-fights-tech-support-scams-while-protecting-your-privacy/), [[6]](https://www.inc.com/jennifer-conrad/googles-newest-ai-can-listen-in-on-calls-to-detect-scammers.html)

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## Bibliography

1. <https://www.webpronews.com/chromes-new-gemini-nano-ai-fights-tech-support-scams-while-protecting-your-privacy/> - Please view link - unable to able to access data
2. <https://android-developers.googleblog.com/2024/10/introduction-to-privacy-and-safety-for-gemini-nano.html> - Google's Android Developers Blog introduces Gemini Nano, an efficient AI model designed for on-device processing to enhance user experience and productivity. It emphasizes privacy and safety by operating within the Private Compute Core (PCC), ensuring data isolation and compliance. The blog details how Gemini Nano, supported by AICore, processes prompts directly on devices without server calls, maintaining user privacy. It also discusses the model's safety features, including native safety awareness, fine-tuning for specific apps, and safety filters on input and output to prevent harmful content.
3. <https://www.livemint.com/technology/tech-news/google-issues-big-warning-for-all-gemini-ai-users-please-dont-enter-confidential-11707808973924.html> - Google has issued a warning to users of its generative AI-based chatbot, Gemini, advising them not to share confidential information. A support document revealed that some conversations are reviewed by human reviewers to improve products, with user-identifying information removed. The document advises users to avoid entering confidential data and provides guidance on managing Gemini Apps Activity, including reviewing prompts and deleting conversations. Google collects user data to enhance products and services but emphasizes user privacy and data protection.
4. <https://www.forbes.com/sites/zakdoffman/2024/05/17/google-teases-free-ai-upgrade-for-samsung-pixel-android-users/> - At Google's I/O event, the company revealed a pre-release AI feature that listens to Android users' calls to detect potential fraud. The feature uses Gemini Nano to provide real-time alerts during calls if it detects conversation patterns associated with scams. Google emphasizes that this protection occurs on-device, ensuring user privacy. Privacy advocates have raised concerns about the implications of such monitoring, highlighting the need for a balance between user safety and privacy.
5. <https://www.news9live.com/technology/tech-news/google-i-o-2024-android-gets-ai-powered-scam-alert-feature-that-works-during-phone-calls-2538082> - Google introduced an AI-powered scam alert feature for Android during the I/O 2024 event. Powered by Gemini Nano, the feature provides real-time alerts during calls if it detects conversation patterns commonly associated with scams. For example, if a caller claiming to be a bank representative asks for uncommon actions, users receive an alert indicating a likely scam. The feature aims to protect users from fraudulent activities by leveraging AI technology.
6. <https://www.inc.com/jennifer-conrad/googles-newest-ai-can-listen-in-on-calls-to-detect-scammers.html> - Google is rolling out a new feature to combat scammers by analyzing phone calls in real-time. Using Gemini Nano, the AI listens for suspicious language, such as requests for money transfers or passwords, and alerts users to potential scams. The processing occurs on-device, ensuring privacy. This feature aims to protect users from fraud by leveraging AI technology to detect and alert users to scam attempts during phone calls.
7. <https://www.bleepingcomputer.com/news/google/google-says-its-focusing-on-privacy-with-gemini-ai-on-android/> - Google emphasizes a privacy-focused approach in integrating AI features on Android devices, implementing end-to-end protection to secure data in transit while keeping sensitive data locally on the device. Gemini AI, developed by Google, integrates seamlessly with Android to assist users with various tasks. For sensitive tasks, Gemini Nano processes AI features directly on the device, even offline, ensuring privacy without cloud dependency. Google highlights its commitment to providing advanced AI capabilities while ensuring user data privacy and security.