



Highlights

- » Detect robocalls originated by owned TNs and upstream provider
- » Mitigate robocalls before authorities take punitive action
- » AI powered audio analytics accurately detect robocall activity
- » Audio files provide irrefutable evidence of illegal bad actor behavior
- » Strengthen “know your customer” programs

Overview

Service providers face a significant challenge: Stop robocalls originating or transiting their networks or face stiff government penalties and business risks, including lawsuits by affected users.

The YouMail Robocall Threat Sentry is a highly effective call analytics solution that enables service providers to mitigate and eliminate robocalls. It provides zero-hour detection of suspicious robocall behavior originating or transiting their network. Based on the same threat database used by the USTelecom Industry Traceback Group for robocall investigations, Robocall Threat Sentry immediately notifies service providers when illegal robocalls are detected, enabling quick action that minimizes risks and protects revenues.

Stop Originating Robocalls

By itself, STIR/SHAKEN caller authentication is insufficient to prevent robocalls. Bad actors can originate authenticated calls by evading customer vetting processes or hacking into poorly secured business networks. Authentication should be paired with call analytics that can detect abusive, fraudulent, or unlawful calls originating on service provider networks.

The YouMail Robocall Threat Sentry enables service providers to meet robocall do-not-originate requirements with a robocall detection solution that is easy to use. It provides reliable zero-hour detection of robocalls originated by a service provider’s owned numbers, enabling them to mitigate the illegal activity. It can be configured with a TN watchlist in minutes and managers can view threat activity on a convenient dashboard, or receive automatic notifications when issues arise.

Competing analytics based on honeypots, call metadata, and crowd sourced data aren’t completely effective. They generate false positives that consume resources on needless customer investigations, or false negatives that can leave the organization exposed to undetected bad actors.

In contrast, the Robocall Threat Sentry detects robocalls by analyzing the audio content in real consumer voicemail messages captured by the YouMail sensor network, the industry’s largest independent sensor network. The YouMail sensor network samples calls received by consumer devices across all major U.S. service providers, including Verizon, AT&T, and T-Mobile. AI-driven algorithms accurately detect bad actor behavior based on voicemail audio content.

Robocall Threat Sentry operates completely outside of a service provider’s network and does not require “trapping” or listening to in-network calls.

When a robocall originates on a service provider’s owned number, the Robocall Threat Sentry issues an immediate notification, including the audio file as evidence. This enables the service provider to swiftly correct the suspicious behavior by confidently engaging the customer or blocking their activity.

Mitigate Robocalls from Upstream Networks

Government authorities are taking punitive action against all types of service providers that facilitate robocalls, including transit networks. Service providers offering international gateway and other transit services to upstream networks risk penalties when they carry robocalls from those networks.

The YouMail Robocall Threat Sentry can mitigate robocall risks from upstream networks. It monitors traffic samples segmented by upstream network, enabling you to quickly identify providers that are sending robocalls and take action to mitigate the traffic.

The dashboard provides a summary of robocall activity, categorized into three provider types: Compliant, Non-Compliant, and Suspicious Service Providers. Each category shows data for three time periods: Last 24 hours, Last 30 days, and Last 90 days.

Provider Type	Time Period	Offending Rate	Numbers	Call Events
Compliant Service Provider (100 numbers)	Last 24 hours	0% offending	0 numbers	0 call events
	Last 30 days	0% offending	0 numbers	0 call events
	Last 90 days	0% offending	0 numbers	0 call events
Non-Compliant Service Provider (100 numbers)	Last 24 hours (51 numbers, 1,031 call events)	51% offending	(949) 555-0141	56 call events
		55 call events	(949) 555-0142	55 call events
		49 call events	(949) 555-0146	49 call events
	Last 30 days (70 numbers, 207,257 call events)	70% offending	(949) 555-0145	9,203 call events
		9,169 call events	(949) 555-0143	9,169 call events
		9,113 call events	(949) 555-0144	9,113 call events
	Last 90 days (79 numbers, 300,000 call events)	79% offending	(949) 555-0141	12,931 call events
		12,865 call events	(949) 555-0143	12,865 call events
		12,785 call events	(949) 555-0142	12,785 call events
Suspicious Service Provider (100 numbers)	Last 24 hours (1 number, 1 call event)	1% offending	(949) 555-0149	47 call events
		45 call events	(949) 555-0145	45 call events
		1% offending	(949) 555-0141	8,882 call events
Last 30 days (1 number, 61 call events)	1% offending	(949) 555-0142	9,006 call events	
	8,882 call events	(949) 555-0141	8,882 call events	
	5% offending	(949) 555-0145	12,539 call events	
Last 90 days (5 numbers, 199 call events)	5% offending	(949) 555-0140	12,570 call events	
	12,570 call events	(949) 555-0140	12,570 call events	
	12,539 call events	(949) 555-0145	12,539 call events	

Home screen provides at-a-glance summary of robocall activity by owned TNs and upstream networks.

Strengthen Attestation with Customer Behavior Analytic

A strong “know your customer” program is essential for applying proper attestation to STIR/SHAKEN caller authentication protocols. Originating service providers can be blind-sided by bad actors masquerading as legitimate businesses, or when customer networks are hacked.

Robocall Threat Sentry strengthens know your customer programs by continuously monitoring their behavior. It protects originating service providers from gaps in customer vetting processes that can allow bad actors to originate robocalls.

The screenshot displays the 'Call Events' interface. On the left is a navigation sidebar with options: Home, Call Events (selected), Watchlists, Campaigns, Phone Lookups, Settings, Documentation, and Help. The main content area shows a list of call events on the left and a 'Call Event Detail' view on the right. The list includes entries for 'Interest Rate Scam' and 'AT&T Rewards Scam' with timestamps and phone numbers. The detail view for the 8:24 AM event shows fields for ID, DATE, WATCHLIST, CALLER NAME, CAMPAIGN LABEL, CAMPAIGN TYPE, ORIGINATION NUMBER, ORIGINATION CARRIER, RECORDING (with a play button and 01:14 duration), and TRANSCRIPTION.

Call Events screen provides details about each threatening call originated by an owned TN.

Maintain a Clean, Robocall-Free Network

Robocalls can be a drain on a service provider’s business, sapping network resources, diverting personnel, smudging its industry reputation, and eroding customer trust. A single account originating robocalls can cause a terminating service provider to black list all calls from the originating network, causing widespread customer dissatisfaction and churn.

In-sourced mitigation solutions require highly specialized development resources, can be costly and time consuming to develop, and must be constantly enhanced as bad actors shift their tactics.

With the Robocall Threat Sentry, service providers can immediately deploy a cost-effective solution that leverages over 10 years of robocall analytics expertise and is field-proven.

Technology Architecture

The Robocall Threat Sentry combines the industry’s largest independent call sensor network with powerful AI algorithms that analyze voicemail audio content. Designed to protect users from unwanted robocalls, it actively listens to messages and flags TNs that originate fraud, telemarketing, or other unwanted calls.

The Robocall Threat Sentry reports a reputation score for each monitored TN, indicating the risk that calls from the originating number are unwanted by users.

The service is managed through an intuitive web interface that enables administrators to configure the TNs to be monitored and visually analyze scores over time. Administrators can configure thresholds for notifications to ensure they are immediately aware when reputation changes occur.

The Robocall Threat Monitor reports a reputation score for each TN that it monitors. The score indicates the risk that calls from the originating number are unwanted by users.

The service is managed through an intuitive web interface that enables administrators to configure the TNs to be monitored and visually analyze scores over time. A RESTful API supports continuous TN updates to ensure no illegal traffic escapes the network. Notifications can be delivered via email and the API that integrates with operational support systems for automated remediation. Administrators can configure thresholds for notifications to ensure they are immediately aware when reputation changes occur.

Features

AI-powered audio analytics and fingerprinting based on billions of calls in the YouMail Sensor Network.

Industry's largest independent call sensor network, monitors calls across US service providers.

Intuitive web dashboard.

Email notifications when TN reputation thresholds are exceeded per watchlist.

REST API

Downloadable audio files.

Originating TN file upload (.csv).

Supplier to USTelecom Industry Traceback Group, FCC and media.

Benefits

Accurate, zero-hour detection of unwanted calls mapped to the caller's intent (fraud, telemarketing) based on audio content.

Threatening campaigns are identified within the first 1-100 calls, including campaigns that spoof a monitored number.

Perform drill down analysis on TNs with poor reputation scores, including threat type, calling frequency and audio file examples.

Take action to mitigate robocalls.

Automatically update watchlists and send notifications to robocall mitigation systems.

Irrefutable robocall evidence that facilitates engagement with customer to modify behavior.

Easily configure list of TNs to be monitored.

Leverage the same data provided to authorities.

YouMail, Inc. protects service providers, enterprises, and consumers from harmful phone calls. YouMail protects service providers with robocall mitigation services that detect when they are originating, carrying, or terminating bad traffic on their networks. YouMail protects consumer-facing enterprises by helping detect and shut down imposter traffic that can lead to financial or brand damage. YouMail protects consumers with app-based call protection services.

YouMail's communications platform handles over a billion calls per year for over 10 million users, and the YouMail Robocall Index™, since its launch in September 2015, has emerged as the nation's definitive source on robocalling data for telecom carriers, smartphone and app companies, and public policymakers.

YouMail, Inc. is privately funded and based in Irvine, California. For more information, visit www.youmail.com