Call007: Realizing the STIR/SHAKEN Promise

Delivering robocall relief for American telephone subscribers

David Frankel







Consumers STILL Under Siege

- Per TNS: 72% of consumers let unrecognized numbers go to voicemail
- Spontaneous yet desired calls only ring for pre-registered contacts
- First-time callers must leave message and await callback; not ideal for:
 - Small businesspeople (e.g., realtors)
 - Those caring for sick/elderly
 - Participants in volunteer community or kids' sports
 - Waiting to hear from teachers or vendors
- This isn't the way the phone is supposed to work!

STIR/SHAKEN Assessment

2018 ASSUMPTION

2025 REALITY

Calls from A-attested numbers (green checkmark) could be tracked and trusted



A single caller or campaign may employ thousands of ANIs, defeating analytics

Most calls would be A-attested; we could be suspicious of B's and C's



Large numbers of calls end up with B's & C's (due to LCR, TDM, lack of effort) so not an effective indicator of wanted/unwanted

All SHAKEN token holders would diligently vet their customers and properly attest calling number



Some token holders flaunt or ignore the rules and accept any customer that pays their bill

Problematic signers would have their tokens revoked



No process, staff or conviction to timely make this happen & no agreed grounds for revocation

Originating provider responsible for each call would be accurately reflected as the SHAKEN signer



Most calls are signed & the signer is the originating provider or related to them

We're Wrongly Fixated on Calling Numbers

- Robocalling has long been associated with spoofing
- Ever-changing spoofing meant we couldn't track the call's origin
- Addressing that, we thought, would eliminate the mystery
- The TRACED Act set out to "restore trust in Caller-ID"

- There are currently about 2.5 billion possible USA NANP numbers
- Tracking their individual ever-changing behaviors is a huge task
 - Miniscule call content is available making deterministic assessments impossible
- On-going spoofing (same number, different sources) confounds the problem

Easier: Track STIR/SHAKEN Signers

- There are only about 2,000 signers
 - Six orders of magnitude fewer than #s
- Simpler to assess signer behavior
- New signers are quickly characterized
- Shifts show up in days or even hours



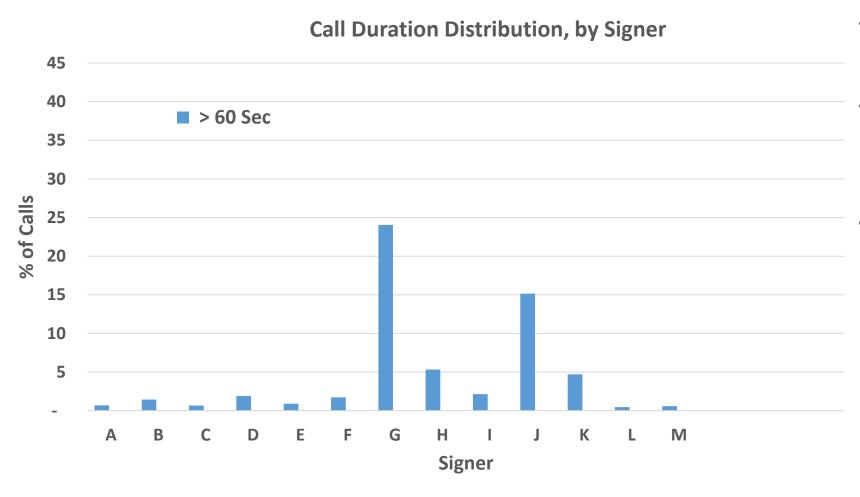
- We don't need to vet or trust signers; instead, look at their traffic
 - A small set of signers specialize in short-duration (call center, dialer) calling
 - They stand out with 90% of their calls less than a minute in duration
- Signer assessments can be completely transparent and public
- Signers themselves have all the info about their own customers' traffic
- Unwanted voicemails leave their own evidence trail

Introducing Call007 for Terminating Providers

- Terminating Providers can make Call007 available to their subscribers
- Call007 is very simple:
 - For each call, it decides, based on the signer, if the call is likely brief
 - Call007 answers brief calls with voicemail instead of ringing the handset
- This is NOT call blocking; all calls are answered
- Subscribers OPT IN to the feature
- If it doesn't work for a subscriber, they opt out
- Call007 is trivial tech based on data providers have
- 3rd party products or subscriptions not required!

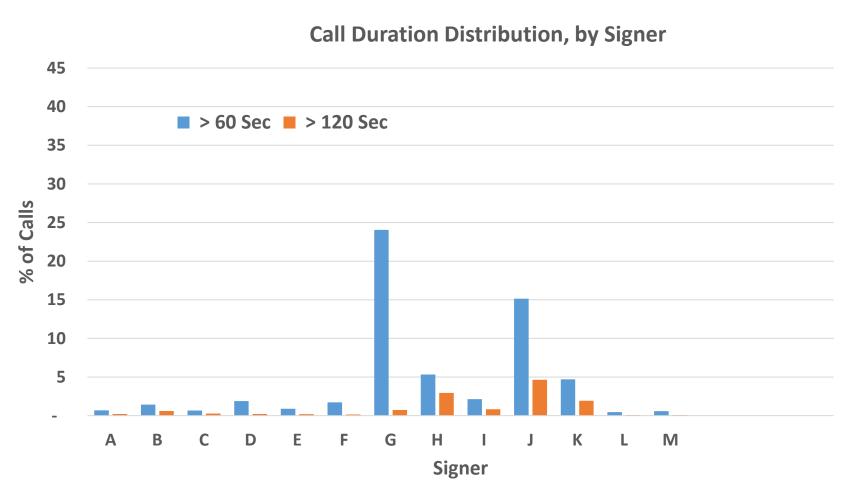


Simple Assessment of Each Signer's Traffic



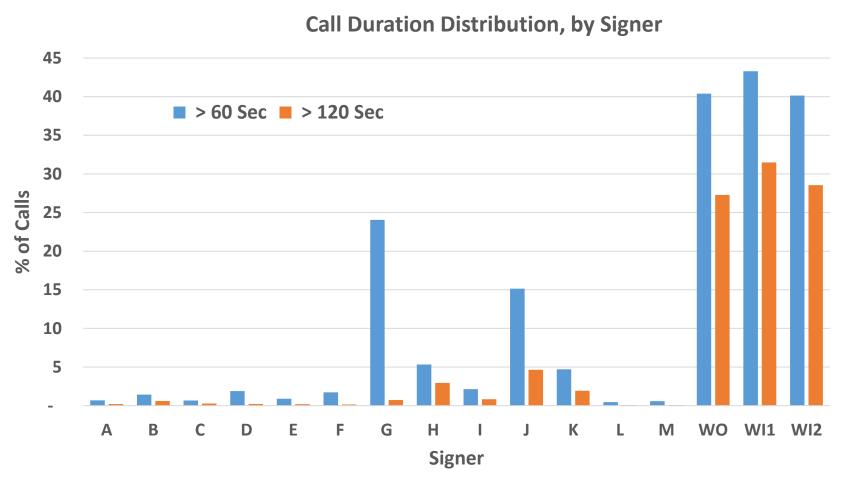
- Recent 30-day study looked at 13 signers
- Five signed more than 100 million calls (> 3M per day) EACH
- ACD of 11 seconds

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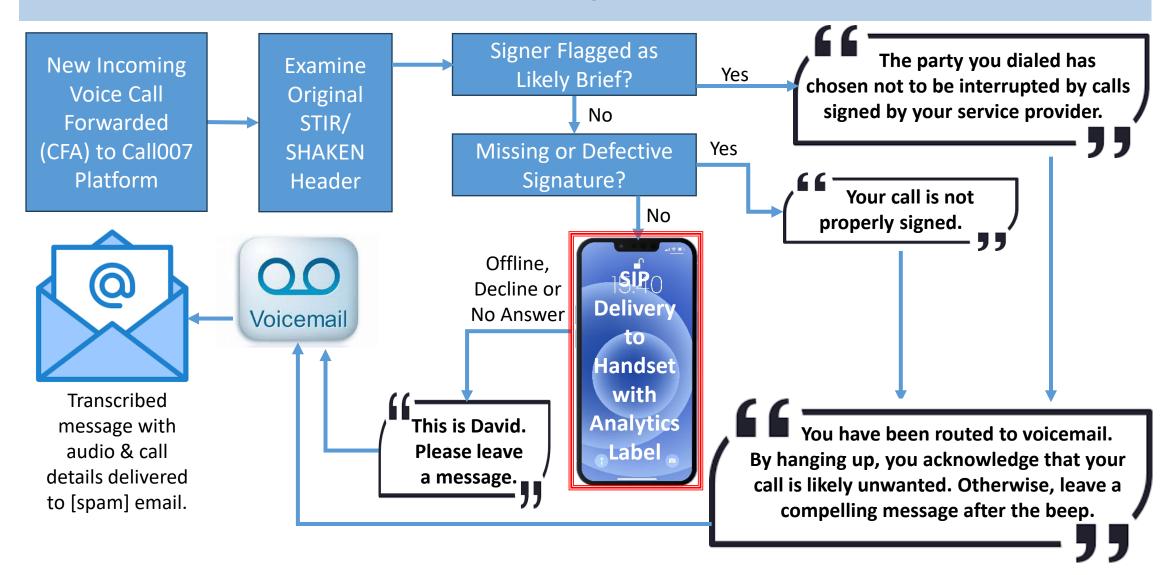
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Simple Assessment of Each Signer's Traffic



- Recent 30-day study looked at 13 signers
- Five signed more than 100 million calls (> 3M per day) EACH
- ACD of 11 seconds
- Very few calls result in a real conversation
- Conversational traffic has a very different profile

Call007 Proof-of-Concept



Don't We Need to Separate Good vs. Bad?

Notifications	Alerts speci	Alerts specific to the called party, who usually welcomes the call (except perhaps for debt collection).		
Flight Cancellation		School Closing	Prescription Ready	Fraud Alert
Appointment Reminder		Payment (Over)Due	Requested Callback	Utility Outage
Placed by companies of all sizes, typically to parties with which they have an explicit relationship. Legal if limits are obeyed.				
Telesales	Promoting a product or service, often of dubious value. Caller claims consent from the recipient (perhaps in response to a web site visit); consent may be obtained unwittingly or not at all. May or may not be legal.			
Auto Warranty		Health Insurance	Legal Solicitation / Accident	Solar / Get Rich Quick
Tax Help / Debt Consolidation		Medicare / Disability Claim	Debt Collection	On-Line Business Listing
Usually placed by smaller companies but may reference brand names (Blue Cross, Medicare, Marriott). Mostly USA-based.				
Political / Charity / Survey		Not universally exempt. May comprise misrepresentation and disinformation.		
Fraud Calls are blatantly fraudulent and false but prey on the vulnerable. Steal money or identity from the victim. Illegal.				
Government Imposter		0% Interest Rate	Unauthorized Charge	Immigration Issues (Mandarin)
Sweepstakes / Giveaway		Computer Virus	Utility Disconnect	Subscription Renewal / Refund
Almost always placed by foreign scammers, but calls enter via USA gateways.				

Empowering Consumers with Call007

- Terminating providers offering Call007 put their subscribers in control
- Most consumers don't care if a call is legal or illegal
 - Consumers don't want somebody else telling them which calls are "wanted"
 - Not Congress, nor FCC/FTC, nor banks or survey-takers or marketers
- Consumers continue to ask for help in addressing the robocall scourge
- To date, STIR/SHAKEN has delivered no substantive benefit to consumers
- Call007 is less imperfect than any other approach to address highvolume calling
- Small scale experience (POC) indicates it's a game-changer
- We should all be begging the Big 3 to offer us CallOO7