WEBINAR

The Dual Impact of Robocalls on Carriers
How Carriers Can Restore Trust in the Phone Network

Thursday, January 15, 2020 | 1-2 PM ET
Learn steps to:

- Deliver better call experiences
- Be compliant with regulations on protecting subscribers from illegal robocalls
- Prevent legitimate calls from being wrongly blocked or mislabeled as spam
- Improve outbound contact rates
The importance of customer experience

The Struggle for Carriers to support outbound dialing
Empowered customers have given rise to a new era

Source: Forrester Research "Winning In The Age Of The Customer" report.

<table>
<thead>
<tr>
<th>Retention loyalty</th>
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<td>The likelihood that a customer will keep existing business with the company</td>
<td>The likelihood that a customer will buy additional products and services from the company</td>
<td>The likelihood that a customer will recommend the company to others</td>
</tr>
</tbody>
</table>
Contact centers project self-service and digital volumes to grow

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Increase</th>
<th>Stay the Same</th>
<th>Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robotic automation (incl. AI) volumes</td>
<td>88.3</td>
<td>7.5</td>
<td>4.2</td>
</tr>
<tr>
<td>Digital agent-assisted service volumes</td>
<td>77.3</td>
<td>12.6</td>
<td>10.1</td>
</tr>
<tr>
<td>Overall interactions (spanning all channels)</td>
<td>65.0</td>
<td>20.8</td>
<td>14.2</td>
</tr>
<tr>
<td>Telephone/live agent volumes</td>
<td>15.0</td>
<td>21.1</td>
<td>63.9</td>
</tr>
</tbody>
</table>

Source: Dimension Data. Global CX Benchmarking Report, 2019
Contact centers use voice less — but for more important interactions

Source: Dimension Data. Global CX Benchmarking Report, 2019
The call experience doesn’t measure up to what other channels offer. 

Carriers’ dual role make them vulnerable to the degraded call experience.
Neustar commissioned a study by Forrester Consulting to understand how the current level of trust of outbound calls affects the customer experience.

### Industry
- Financial services and/or insurance: 18%
- Travel and hospitality: 17%
- Retail/eCommerce: 17%
- Collections: 17%
- Telecommunications services/carriers: 16%
- Energy, utilities, and/or waste management: 16%

### Company size
- 500 to 999 employees: 34%
- 1,000 to 4,999 employees: 18%
- 5,000 to 19,999 employees: 37%
- 20,000 or more employees: 11%

### Respondent level
- C-level executive: 8%
- Vice president: 19%
- Director: 34%
- Manager: 39%

Base: 319 business and technology decision makers responsible for outbound call experiences (52 are telecom carriers).
Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, May 2019
Companies focus on growing revenue and improving the customer experience in 2019

“What are your company’s top business goals for the next 12 months? How important is your outbound call experience to achieving each of your company’s top goals?”

<table>
<thead>
<tr>
<th>Business goal rank</th>
<th>Critical</th>
<th>Important</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1) Grow revenue</td>
<td>44%</td>
<td>40%</td>
<td>88%</td>
</tr>
<tr>
<td>No. 2) Improve customer experience</td>
<td>50%</td>
<td>31%</td>
<td>81%</td>
</tr>
<tr>
<td>No. 3) Improve operational efficiency</td>
<td>24%</td>
<td>52%</td>
<td>76%</td>
</tr>
<tr>
<td>No. 4) Reduce costs</td>
<td>37%</td>
<td>32%</td>
<td>69%</td>
</tr>
</tbody>
</table>

Base: 319 business and technology decision makers responsible for outbound call experiences.
Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, August 2019
Growing revenue and improving the customer experience in 2019 are also top focus areas for carriers.

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Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, August 2019

Voice is the most important outbound channel for customer service for carriers.

Which of the following outbound channels are you currently using to connect with consumers? (Select all that apply)

<table>
<thead>
<tr>
<th>Channel</th>
<th>Other industries</th>
<th>Telecom carriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>85%</td>
<td>73%</td>
</tr>
<tr>
<td>Voice</td>
<td>73%</td>
<td>65%</td>
</tr>
<tr>
<td>SMS</td>
<td>43%</td>
<td>54%</td>
</tr>
<tr>
<td>Chat</td>
<td>41%</td>
<td>46%</td>
</tr>
<tr>
<td>Social channels</td>
<td>24%</td>
<td>29%</td>
</tr>
<tr>
<td>Messaging apps</td>
<td>16%</td>
<td>23%</td>
</tr>
</tbody>
</table>

How important are each of these outbound channels to meeting your customer service goals?*

<table>
<thead>
<tr>
<th>Channel</th>
<th>Critical</th>
<th>Important</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>34%</td>
<td>42%</td>
<td>76%</td>
</tr>
<tr>
<td>Voice</td>
<td>56%</td>
<td>32%</td>
<td>88%</td>
</tr>
<tr>
<td>SMS</td>
<td>18%</td>
<td>46%</td>
<td>64%</td>
</tr>
<tr>
<td>Chat</td>
<td>21%</td>
<td>38%</td>
<td>59%</td>
</tr>
<tr>
<td>Social channels</td>
<td>13%</td>
<td>20%</td>
<td>33%</td>
</tr>
<tr>
<td>Messaging apps</td>
<td>8%</td>
<td>33%</td>
<td>41%</td>
</tr>
</tbody>
</table>

*Based on variable business and technology decision makers responsible for outbound call experiences at telecom carrier firms.

Base: 319 business and technology decision makers responsible for outbound call experiences (52 telecom carriers)

Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, May 2019.
Carriers are more reliant on outbound calling than other industries

**# of outbound calls per month**

<table>
<thead>
<tr>
<th>Range</th>
<th>Carriers*</th>
<th>All other industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000,000,000 or more</td>
<td>15%</td>
<td>2%</td>
</tr>
<tr>
<td>10,000,000-19,999,999</td>
<td>23%</td>
<td>5%</td>
</tr>
<tr>
<td>1,000,000 - 9,999,999</td>
<td>23%</td>
<td>13%</td>
</tr>
<tr>
<td>500,000-999,999</td>
<td>21%</td>
<td>20%</td>
</tr>
<tr>
<td>100,000-499,999</td>
<td>15%</td>
<td>25%</td>
</tr>
<tr>
<td>5,000-99,999</td>
<td>23%</td>
<td>34%</td>
</tr>
</tbody>
</table>

40% of carriers say they make 1 million or more outbound calls per month, compared to just 21% in other industries.

Base: 267 business and technology decision makers responsible for outbound call experiences at US enterprises (not telecom)
*Base: 52 business and technology decision makers responsible for outbound call experiences at US telecom carriers
Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, May 2019
Callbacks and notifications are the primary use cases for enterprises— and carriers today

Telecom carriers are more likely than other industries to use the outbound call channel to facilitate service for customers – making outbound calls for installation and delivery at higher rates than other industries

Base: 319 business and technology decision makers responsible for outbound call experiences.
Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, May 2019.
Carriers face challenges when contacting consumers over the voice channel

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spam tagging/mislabeling of calls</td>
<td>67%</td>
</tr>
<tr>
<td>Failure to answer</td>
<td>50%</td>
</tr>
<tr>
<td>Failure to connect with the correct party</td>
<td>48%</td>
</tr>
<tr>
<td>Lack of contact data</td>
<td>42%</td>
</tr>
<tr>
<td>Blocked calls</td>
<td>40%</td>
</tr>
<tr>
<td>Compliance risks (Do Not Call/TCPA)</td>
<td>33%</td>
</tr>
<tr>
<td>Improper agent scheduling (calling at incorrect/inconvenient times)</td>
<td>31%</td>
</tr>
</tbody>
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Base: 52 business and technology decision makers responsible for outbound call experiences at US telecom carriers
Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, December 2019
Carriers can’t connect with their customers

To your best estimate, what percentage of your outbound calls are generally answered?

Avg.: 19.7%

To your best estimate, what percentage of your outbound calls are generally answered by the right person?

Avg.: 10.2%

Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, December 2019

Base: 52 business and technology decision makers responsible for outbound call experiences at US telecom carriers
Carriers’ business is impacted because they cannot connect with customers

How do the challenges you face in contacting customers over the voice channel impact your business?

- 56% Decreased customer satisfaction
- 29% Loss of customers
- 48% Increased operational costs
- 37% Loss of revenue

Base: 52 business and technology decision makers responsible for outbound call experiences at US telecom carriers
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Improving outbound call experience is a top CX goal for carriers

<table>
<thead>
<tr>
<th>Category</th>
<th>Rank 1</th>
<th>Rank 2</th>
<th>Rank 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve customer service</td>
<td>23%</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>Better understand customer journeys</td>
<td>13%</td>
<td>13%</td>
<td>6%</td>
</tr>
<tr>
<td>Improve our outbound call experience</td>
<td>12%</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>Improve digital experience</td>
<td>12%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Improve store/branch customer experience</td>
<td>8%</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td>Add/improve mobile customer experience</td>
<td>8%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Increase the frequency of customer engagement</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Add or improve our customer experience measurement (e.g., VoC)</td>
<td>8%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Improve cross-channel customer experience</td>
<td>6%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Better align digital and call strategy</td>
<td>4%</td>
<td>10%</td>
<td>8%</td>
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Base: 52 business and technology decision makers responsible for outbound call experiences at US telecom carriers

Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, December 2019
Carriers are interested in a solution that improves right-party contact rates…

…but just 34% have implemented a trusted call solution to date

- Implemented/expanding: 15%
- Piloting: 19%
- Planning to implement in the next 12 months: 37%
- Interested, but no plans: 23%
- Not interested, no plan / Don't know: 6%

Base: 52 business and technology decision makers responsible for outbound call experiences at US telecom carriers
Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, December 2019
Top capabilities desired in a trusted call solution for carriers: (ranked as top 5)

#1 – Up to date, and appended contact information (58%)

#2 - Intelligence to tell me the best day and time to reach out to my customers (52%)

#3 - Reliable and accurate caller name information displayed for inbound and outbound calls (52%)

#4 - Protection for my company numbers from call blocking, spoofing, and spam tagging (48%)

#5 - Proactive notifications of changes to identity and phone data (46%)

Base: 52 business and technology decision makers responsible for outbound call experiences at US telecom carriers
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### Improve the customer experience to impact top line revenue

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Robocall Conundrum

The Dual Role of Carriers in Addressing Robocalls

Jonjie Sena
THE CONSUMER PROBLEM: NOBODY TRUSTS THE PHONE

2,000+
Robocalls every second\(^1\)

March 2019 saw 5.23 billion robocalls, the highest volume ever
About 15 calls per person per month

69%
fraud reported as contacted by phone in 2018\(^2\)

$429M
Lost to call scams in 2018\(^3\)

70%
Consumers stopped answering if don’t recognize or if caller’s number is anonymous\(^4\)

Sources
1. YouMail Robocall Index
2. Federal Trade Commission Consumer Sentinel Network Data Book 2018
3. Federal Trade Commission Consumer Sentinel Network Data Book 2018
4. Consumer Reports Survey, December 2018
WHAT CARRIERS NEED TO DO

1. Comply with anti-robocall legislation
REGULATORS & LEGISLATORS: STOP ROBOCALLS NOW

June 6, 2019
FCC allows blocking of illegal AND unwanted robocalls (without opt-in)

Aug 22, 2019
All State AG’s + 12 leading operators adopt Anti-Robocall Principles

May 23, 2019
Senate votes 97-1 to approve TRACED Act

July 24, 2019
House votes 239-3 to pass Stopping Bad Robocalls Act

Nov 15, 2019
House & Senate compromise bill

Dec 04, 2019
House passes 417-3

Dec 19, 2019
Senate passes unanimously

Dec 30, 2019
Enacted: Pallone-Thune TRACED Act

TRACED ACT
🔸 BLOCK unwanted calls and texts
🔸 VERIFY calls with STIR/SHAKEN
🔸 FINE violators up to $10K per call
RESPONSIBILITY #1A: ROBOCALL ANALYTICS

ROBOCALLS
- Autodial or programmatic calls
- Automation enables high-volume calls

WHAT: Apply call analytics to compute per-call fraud score to warn consumers

ISSUE: But legitimate calls sometimes mistakenly blocked or mislabeled
RESPONSIBILITY #1B: CALL AUTHENTICATION (STIR/SHAKEN)

CALL SPOOFING
- Alter “calling” phone number
- Looks like call is from someone else

WHAT: Use digital certificates to protect against illegal spoofing & warn customers

ISSUE: Not supported in legacy networks; enterprises can’t sign calls
WHAT CARRIERS NEED TO DO

2. Optimize phone channel as viable way to connect with customers
CARRIERS MAKE A LOT OF CALLS; AND ITS BECOMING LESS EFFECTIVE

40% of carriers make 1 million or more outbound calls per month, compared to just 21% of enterprises in other industries

Carriers face the same outbound call challenges: spam tagging and call blocking (by other carriers)

Base: 267 business and technology decision makers responsible for outbound call experiences at US enterprises (not telecom)

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Source: A commissioned study conducted by Forrester Consulting on behalf of Neustar, May 2019
POLL QUESTION

What stage of PLANNING for call authentication technologies are you?

1. Complete / Near Complete
2. In Progress
3. Planning
4. Haven’t Started
5. No Plans
**EVOLUTION: TRUSTED CALL SOLUTIONS**

1. **COMPLIANCE**

   - **Robocall Mitigation**: Apply analytics to detect, block or warn subscribers of illegal and unwanted inbound calls.

   - **Certified Caller**: Digitally sign outbound calls to assure customers, and battle unwanted inbound robocalls.

2. **OPTIMIZE**

   - **Caller Name Optimization**: Manage how name & brand appears on calls, and protect against blocking / mislabeling.

   - **Branded Call Display**: Personalize mobile screen for contextual and branded customer call experience.

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ROBOCALL MITIGATION: APPLY ANALYTICS TO DETECT ROBOCALLS

FEATURES

FRAUD CALL SCORING
- Apply call analytics to compute per-call fraud score
- Supports integration with other analytics providers

NOTIFY SUBSCRIBERS
- Leverage CNAM infrastructure to warn & notify subscribers
- Supports operators’ customizable policies for display

MEET FCC MANDATES
- Supports FCC’s Nov 2017 Robocall Blocking Order to authoritatively identify invalid & unassigned numbers.
- Blacklist inbound-only numbers as Do-Not-Originate to prevent spoofing

REPORTING
- Monitoring and alerts regarding your brand’s reputation
CERTIFIED CALLER: AUTHENTICATE CALLS WITH STIR/SHAKEN

**FEATURES**

**SIGN CALLS WITH DIGITAL CERTIFICATES**
- Authenticate outbound calls & verify inbound calls with STIR/SHAKEN

**NOTIFY SUBSCRIBERS**
- Leverage CNAM infrastructure to warn & notify subscribers
- Supports operators’ customizable policies for display

**ENSURE INTEROPERABILITY**
- Neustar’s reference implementation for STIR/SHAKEN is used for interoperability testing for the industry robocall testbed

**MEET REGULATORY MANDATES**
- Supports FCC and legislative calls to deploy call authentication (STIR/SHAKEN) by end of 2019
CALLER NAME OPTIMIZATION: MANAGE YOUR CALLING BRAND

FEATURES

CALLER NAME MANAGEMENT
- Standardize caller name, or customize by extension

SPAM TAG REMOVAL
- Register verified business numbers to mitigate incorrect call blocking and spam-labeling
- Neustar publishes to all leading carriers & apps

DO-NOT-ORIGINATE (DNO)
- Blacklist inbound-only numbers as Do-Not-Originate to prevent spoofing

REPORTING
- Monitoring and alerts regarding your brand’s reputation

BRAND PROTECT
- Protect call brand with monitoring alerts if others attempt to register their numbers with your name
BRANDED CALL DISPLAY: ENHANCE THE MOBILE CALL EXPERIENCE

FEATURES

PERSONALIZED
- Enhance caller identity with a customized brand display for an differentiated and enriched mobile call experience
- Add a targeted message to deliver a personalized branded experience

CONTEXTUAL
- Give customers a reason to answer and to engage in the conversation
- Display call authentication / verification result

RICH ENHANCED CONTENT
- Leverage the mobile screen with logos, images and e-business cards for a rich multimedia display
- Provide expanded name information, business location, title, department
Full Portfolio of Trusted Call Solutions
Set of integrated, market-leading solutions for caller ID for mobile and landline, caller name optimization, branded call display and call authentication.

Identity Resolution Is In Our DNA
Expertise in advanced analytics and identity resolution & verification to enable trusted communications.

Leading Customer Network Of Carriers & Enterprises
Neustar provides Caller Identification services to over 800 carriers, and identity resolution solutions to over 7,000 leading brands and businesses.

Pioneer in Call Authentication
Co-author of STIR standards, and early contributor to SHAKEN framework. Ongoing leadership role in defining industry standards with ATIS, IETF and CRTC.

Industry’s Reference Implementation of STIR/SHAKEN
As exclusive operator of the ATIS Robocalling Testbed, real-world STIR/SHAKEN implementations have and continue to be tested for interoperability with Neustar’s Testbed (and commercial) implementation.

Future-Proof Call Authentication Solution
Fully-compliant to STIR/SHAKEN specifications, including all required and emerging components: SKS, SP-KMS, STI-AS, STI-VS, and STI-CR.

More Ways to Monetize
Flexible interfaces, STIR/SHAKEN software licensing and deployment support for both vendors and carriers to expand services and features, including enterprise-specific applications.
POLLING QUESTION

What is the MOST IMPORTANT driver to your organization for implementing call authentication?

1. Regulatory Compliance
2. Risk & Security
3. Customer Retention / Care
4. Customer Growth / Experience
Questions?

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Slides will be shared after the webinar