

Ribbon's Industry-Tested Solutions Support Major Effort to Combat Unwanted Robocalling

Ribbon's Session Border Controller and Policy and Routing solutions have successfully completed testing in the ATIS Robocalling Testbed

Barcelona, Spain – Ribbon Communications Inc. (Nasdaq: RBBN), a global software leader in secure and intelligent cloud communications, today announced that two of its key solutions have successfully completed interoperability testing to support a major industry effort designed to help communications service providers (CSPs) protect consumers against unwanted robocalls and caller ID spoofing. Ribbon's market-leading software and appliance-based session border controllers (SBC 5000 Series, SBC 7000 and SBC SWe) and its policy and routing (PSX) software solutions have completed testing with Neustar, a leading global information services provider and the exclusive host of the ATIS Robocalling Testbed.

This testing supports a joint effort from the Internet Engineering Task Force (IETF) and the Alliance for Telecommunications Industry Solutions (ATIS) called **STIR-SHAKEN**, which is aimed at boosting consumer protection against robocalls and spoofing. Ribbon's software-based solutions comply with the IETF's Secure Telephone Identity Revisited (STIR) standards and the Signature-based Handling of Asserted information using toKENs (SHAKEN) framework, which was developed by the ATIS/SIP Forum NNI Task Force.

Ribbon is collaborating closely with Neustar and other industry partners to deliver a comprehensive solution that enables CSPs to combat robo and nuisance calls via the STIR-SHAKEN initiative.

"Nuisance and spoofed calls have been cited as the largest source of consumer complaints to the Federal Communications Commission (FCC) and are now the agency's top priority, with the FCC Chairman calling on all CSPs to work together to make call authentication a reality," said Kevin Riley, Chief Technology Officer for Ribbon. "Our newly tested, standards-based solutions allow CSPs to now offer consumers significantly improved call authentication and verification protection against the annoying spoofed calls and robocalls that many of us receive on a daily basis."

Riley added, "These solutions combined with our SBC and Ribbon Protect security features provide CSPs with a comprehensive offering for Unified Communications security and improved identity management."

"The Secure Telephone Identity Governance Authority operating under the auspices of ATIS is bringing the industry together to develop an overall framework to put STIR-SHAKEN into action in the network,"

said ATIS President and CEO Susan Miller. "Our joint STIR-SHAKEN efforts are helping Testbed participants deliver practical solutions to address one of the industry's most serious concerns."

"Ribbon and Neustar are working closely with other ecosystem partners and industry organizations to deliver best-in-class, interoperable, standards-based solutions that will help service providers address this growing problem," said James Garvert, General Manager and Vice President, Caller Identification Solutions, Neustar. "We believe our close collaboration and combined expertise will help accelerate the industry adoption of the STIR-SHAKEN standards."

Key Takeaways:

- Ribbon's software and appliance-based session border controller and policy and routing solutions, have successfully been tested with Neustar in the ATIS Robocalling Testbed to support the efforts of the IETF and ATIS in eliminating robocalls and call spoofing.
- The newly tested solutions are part of the industry's STIR-SHAKEN efforts, which are aimed at protecting consumers against nuisance calls.
- Ribbon's advanced session border controller and policy and routing solutions offer CSPs advanced network detection and security capabilities, and complement the STIR-SHAKEN efforts of the IETF and ATIS to mitigate the robocalling and call spoofing epidemic.
- Ribbon is working with several industry partners, including Neustar, to deliver a holistic solution to address the robocalling issue.

About ATIS

As a leading technology and solutions development organization, the Alliance for Telecommunications Industry Solutions (ATIS) brings together the top global ICT companies to advance the industry's business priorities. ATIS' 150 member companies are currently working to address 5G, robocall mitigation, Smart Cities, artificial intelligence-enabled networks, distributed ledger/blockchain technology, cybersecurity, IoT, emergency services, quality of service, billing support, operations, and much more. These priorities follow a fast-track development lifecycle – from design and innovation through standards, specifications, requirements, business use cases, software toolkits, open source solutions, and interoperability testing.

ATIS is accredited by the American National Standards Institute (ANSI). ATIS is the North American Organizational Partner for the 3rd Generation Partnership Project (3GPP), a founding Partner of the oneM2M global initiative, a member of the International Telecommunication Union (ITU), as well as a member of the Inter-American Telecommunication Commission (CITEL). For more information, visit www.atis.org. Follow ATIS on Twitter and on LinkedIn.

About Neustar

Neustar, Inc. is a leading global information services provider driving the connected world forward with responsible identity resolution. As a company built on a foundation of Privacy by Design, Neustar is depended upon by the world's largest corporations to help grow, guard and guide their businesses with the most complete understanding of how to connect people, places and things. Neustar's unique, accurate and real-time identity system, continuously corroborated through billions of transactions, empowers critical decisions across our clients' enterprise needs. Neustar is the industry leader in Caller Identification solutions, co-author of the STIR standards, key contributor to the SHAKEN framework, and serves as the exclusive host of the industry's Robocall Testbed. More information is available at https://www.home.neustar.

About Ribbon Communications

Ribbon Communications is a company with two decades of leadership in real-time communications. Built on world-class technology and intellectual property, the company delivers intelligent, secure, embedded

real-time communications for today's world. The company transforms fixed, mobile and enterprise networks from legacy environments to secure IP and cloud-based architectures, enabling highly productive communications for consumers and businesses. With a global footprint, Ribbon's innovative, market-leading portfolio empowers service providers and enterprises with rapid service creation in a fully virtualized environment. The company's Kandy real-time communications software platform delivers a comprehensive set of advanced embedded and unified (CPaaS and UCaaS) communications capabilities that enables this transformation. To learn more, visit ribboncommunications.com.

Important Information Regarding Forward-Looking Statements

The information in this release contains forward-looking statements regarding future events that involve risks and uncertainties, including statements regarding delivering value to customers. All statements other than statements of historical facts contained in this release are forward-looking statements. The actual results of Ribbon Communications may differ materially from those contemplated by the forward-looking statements. For further information regarding risks and uncertainties associated with Ribbon Communications' business, please refer to the "Risk Factors" section of Ribbon Communications' most recent annual or quarterly report filed with the SEC. Any forward-looking statements represent Ribbon Communications' views only as of the date on which such statement is made and should not be relied upon as representing Ribbon Communications' views as of any subsequent date. While Ribbon Communications may elect to update forward-looking statements at some point, Ribbon Communications specifically disclaims any obligation to do so.