



Commercial Launch of Nauto in Japan Market AI Powered Driver Safety System from the U.S.

Tokyo, Japan – July 20, 2018 – ORIX Auto Corporation (“ORIX Auto”) announced that, ORIX Auto and Nauto Inc., an artificial intelligence (AI) powered automotive technology company, have agreed to collaborate for a commercial launch of Nauto’s AI based connected drive recorder (also called “Nauto”) in Japan.

In this partnership, ORIX Auto, a company which has expertise in providing telematics services^{*1} and know-how of risk consulting, will be the exclusive reseller of Nauto in the Japanese Auto Leasing market. Nauto’s commercial sales for their enterprise fleet will begin on August 6th, 2018^{*2}. SoftBank Corp. (“SoftBank”) will collaborate with ORIX by assisting with sales.

Nauto is a drive recorder equipped with two high-quality cameras that detect and record high-risk events inside and outside of vehicles. The artificial intelligence is able to detect distractions and immediately warn drivers in real-time, as well as identify potential risks, such as inefficient distance between vehicles. The AI is driven by Nauto’s use of computer vision and deep learning algorithms, allowing it to better assess drivers’ behavior, detect external objects, and understand overall road context.



Nauto drive recorder (photos taken from inside and outside the vehicle)

When Nauto's device detects such high-risk events, including distracted driving, or other high-risk driver behaviors such as ABCs(Hard Acceleration, Braking, Cornering)or collisions, it uploads the event’s relevant data to the cloud; all other data remains on the device. Further analysis enables Nauto to evaluate each driver's relative risk level with the VERA Score^{*3}. Nauto also can identify drivers and access driving data, which enables more accurate, efficient, and safe driving coaching for its users while at the same time providing videos of risky events to fleet managers.

ORIX Auto, SoftBank, and Nauto will continue to collaborate and build on each other’s strengths to provide services which help improve safety for enterprise users and drivers.

*1 ORIX Auto Corporation provides telematics devices for vehicles with GPS by connecting to the cloud to collect vehicle driving data together through its web-based fleet management and consulting services. This enterprise service called “e-telema” and “e-telema PRO” are installed in 158,000 vehicles as of March, 2018.

*2 This service is provided with an initial set up and installation fee of 13,000 yen and 5,500 yen monthly subscription (without tax). The service term is 3 years. These conditions are subject to change.

*3 Vision Enhanced Risk Assessment Score. Nauto’s proprietary metric automatically scores a driver’s safety performance risk based on how attentive and smoothly they drive. The score is shown as “VERA Score.” Attentiveness is calculated based on the frequency, duration and severity of distracted driving. Smooth driving is calculated based on the frequency, speed, and severity (based on G sensor data) or ABC (acceleration, braking and cornering) events. (details of the calculation are confidential).



Nauto feature introduction

AI detects the risk events in real time while driving. (Refer to the video on Nauto Corporate Website <https://www.nauto.com/>)



Nauto's strength

	Nauto's strength	Common drive recorder
Data collection	AI will detect and extract only the necessary data on edge, and send it to the web with LTE connection.	Physically collects SD cards. Fleet managers need to download data from each SD card one by one.
Data analysis	Analyzes video in real time and extracts risk events. Sends feedback when risk events are triggered.	Monitors video data to extract risk events manually.
Risk analysis	Makes consolidated scores and insights with sensor and behavior monitored on video such as distracted driving.	Analyzes sensor/vehicle data based on risk and risk video is extracted separately.
Trip history	Driver ID tags drivers to trip histories automatically,utilizing computer vision. Trip histories are stored on the cloud.	Drivers are linked to vehicle by reservation system. Trip histories are linked to drivers based on reservation data.
Detection accuracy	Events are triggered not only by simple G sensor data. Positives and false positives are filtered using patterns of sensor data and video data. Event detection has a high accuracy rate with less false positives.	Events include false positives such as bumps on the road. It leaves a burden on fleet managers to filter out false positives.
Continuous improvements	Nauto releases new versions of web applications and software on devices on a regular basis with a 90-120 day cycle.	—
AI capability	Nauto's AI is not pattern based machine learning, but it uses the deep learning method to detect risks. Its algorithm is continuously improving. It has a large deployment result in the US with about 1 year of commercial sales and stored data.	Commercial deployment of AI based products is still limited.



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About ORIX:

ORIX Corporation (TSE: 8591; NYSE: IX) is an opportunistic, diversified, innovation-driven global powerhouse with a proven track record of profitability. Established in 1964, ORIX at present operates a diverse portfolio of businesses in the operations, financial services, and investment spaces. ORIX's highly complementary business activities span industries including: energy, private equity, infrastructure, automotive, ship and aircraft, real estate and retail financial services. ORIX has also spread its business globally by establishing locations in a total of 38 countries and regions across the world. Through its business activities, ORIX has long been committed to corporate citizenship and environmental sustainability. For more details, please visit our website: <https://www.orix.co.jp/grp/en/>
(As of March 31, 2018)

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These documents may contain forward-looking statements about expected future events and financial results that involve risks and uncertainties. Such statements are based on our current expectations and are subject to uncertainties and risks that could cause actual results that differ materially from those described in the forward-looking statements. Factors that could cause such a difference include, but are not limited to, those described under "Risk Factors" in the Company's annual report on Form 20-F filed with the United States Securities and Exchange Commission and under "(4) Risk Factors" of the "1. Summary of Consolidated Financial Results" of the "Consolidated Financial Results April 1, 2017 – March 31, 2018."