News Release

Seven Bank, Ltd.

N E C Corporation

Introducing a Next-generation ATM with face recognition and QR code reader

Japan's first demonstration test for opening bank accounts by face-authentication at ATMs

Seven Bank, Ltd. (hereinafter "Seven Bank"; headquarters: Chiyoda-ku, Tokyo; President and Representative Director: Yasuaki Funatake) and NEC Corporation (hereinafter "NEC"; headquarters: Minato-ku, Tokyo; President and CEO: Takashi Niino) hereby announce the development of a next-generation ATM, which has a facial recognition engine with the world's No.1 certification accuracy. The ATM is to be installed and to replace old machines from this September.

In recent years, technological innovations such as FinTech have led to the creation of new financial services and the improvement of operational efficiency as financial institutions, etc. are required to respond to digitalization.

Taking into account the advances in biometrics, AI, IoT, and other technologies, this next-generation ATM is capable of face recognition for identity verification and settlement with QR codes.

In addition, it also utilizes AI and IoT to predict cash demand more precisely and detect prior warning of component failures, which helps to streamline ATM operations. Through the ATMs, Seven Bank and NEC will continue to provide safe and secure lifestyle infrastructure and provide new value in response to changes in society.

Key features of the Next-generation ATM

Provides new value	・Identity verification: facial verification function and identification document reader ・Settlement with reading QR code ・Bluetooth function: send out information to smartphones
Easier to use	・ATM screens easier to view and understand ・Pursuing universal design
More safe and secure	・Changing the design of ATM: cocoon like curve-shaped visor etc. ・Security measures: automatic detection of financial crimes at ATMs ・Improve operational efficiency through AI and IoT ・Reduce environmental impact: reduce electricity and CO_2 emissions by 40% compared to current ATMs
Others （Demonstration test）	・Accepting opening of bank accounts at next-generation ATMs (starting from October 2019 for bank accounts of Seven Bank) ・Installation of seismometers: contribute to understanding of overall disaster conditions and strengthening disaster prevention capabilities

*Installation plan for next-generation ATM: Replacements for ATMs in Tokyo are to be completed by summer 2020 and the rest are to be done by FY2024.

■Provide new value

1．User authentication

Allows the provision of eKYC services for banks, securities companies, and other financial institutions, as well as FinTech operators. Quickly and securely confirms the identity that is required when opening an account or changing addresses at a new-generation ATM.

Facial verification

Reading identification document

（Note）Quick and secure identification by NEC's facial recognition technology with the world's No.1 certification accuracy (*1).

Next-generation ATMs utilize NEC's NeoFace, which is a core technology of Bio-IDiom (*2), NEC's original biometric authentication technologies, and provide a quick and secure identity verification mechanism. Specifically, customers are provided with a QR code based on personal information entered from a PC or smartphone in advance. This QR code, face images and identification documents (driver's license, my number card, etc.) are recorded by a camera and scanner mounted on ATMs. This process makes the identity verification procedure more efficient for financial institutions and FinTech operators than traditional mailing systems that require customers to sign documents and show their IDs. In addition, the time needed to provide services is shortened and convenience is improved for users.

*1) NEC's Video Face Recognition Technology Ranks First in NIST Testing
https://www.nec.com/en/press/201703/global_20170316_01.html

*2) Bio-IDiom

"Bio-IDiom" is NEC's portfolio of biometric identification solutions, including face, iris, fingerprint, palm print, finger vein, voice, and ear acoustic solutions.
https://www.nec.com/en/global/solutions/biometrics/index.html

２．QR Code Reader

With the QR Code reader, we plan to expand services, such as payments.

３．Bluetooth

If a smartphone's Bluetooth is turned on when making transactions at ATMs, coupons, information on special deals and transaction statements may also be sent to the smartphone.

■Even more user friendly

１．ATM screen easier to view and understand

Top and bottom integrated screens, large fonts, animations, and easy-to-view coloring are adopted to enhance usability. Screens shown for making transactions are certified for Color Universal Design.
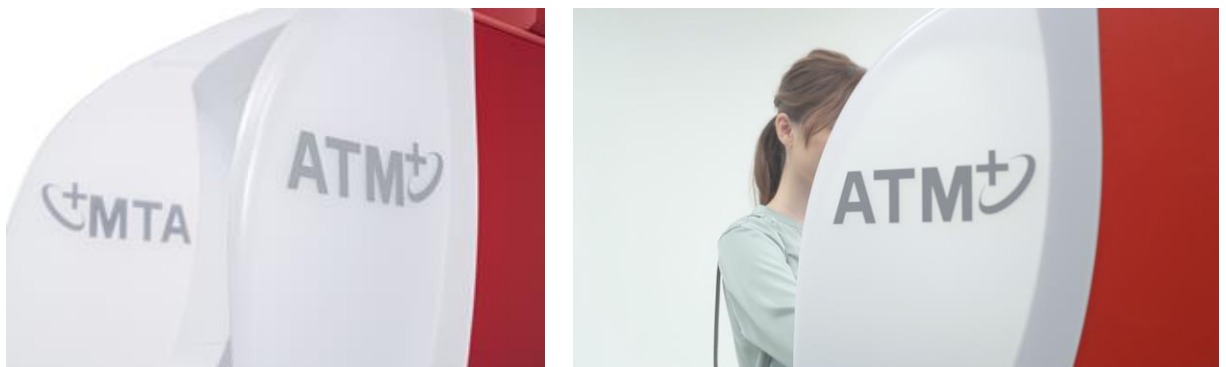
２．Pursuing Universal Design

　　To allow easier access for persons in wheelchairs, the position of the interphone has been lowered. Also, holders for drinks, canes, and shopping bags are placed in positions convenient for customer use.

■More safe and secure

１．Changing the design of the ATM

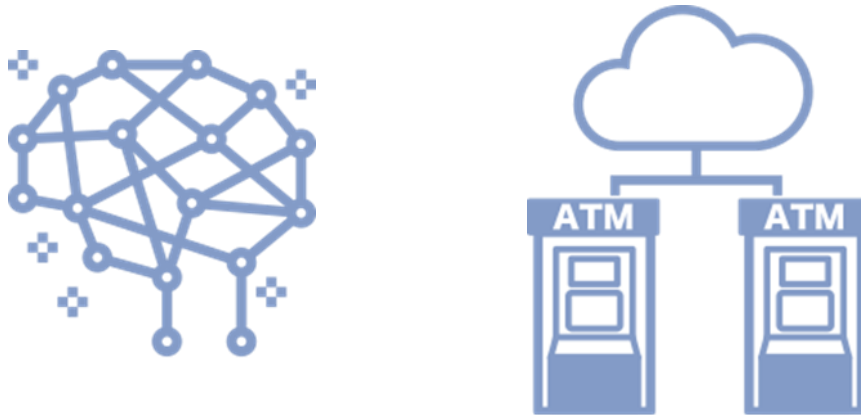Designed to ensure safe transactions by concealing customers with cocoon-like visors.

２．Security measures

Automatically detects financial crimes at ATMs and reports to the call center.

３．Improve operational efficiency through AI and IoT (realizing ATMs which do not stop operating)
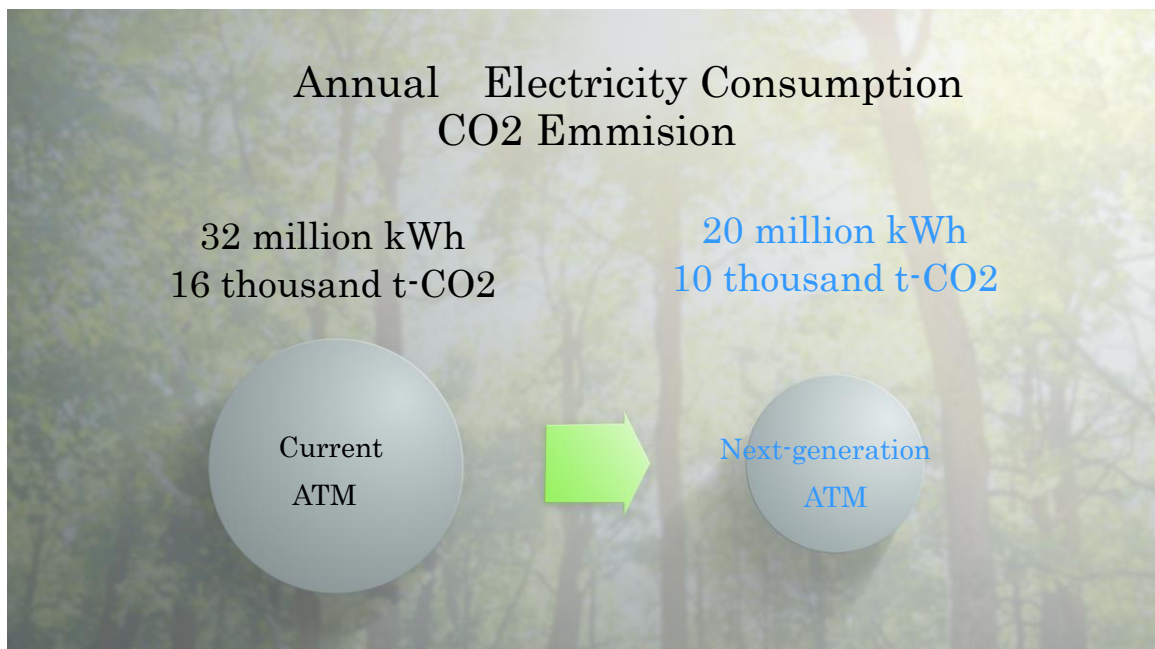
AI predicts cash demand forecast for each ATM, while alerts and prediction for various ATM machine parts will be done by IoT.

Utilization of AI and IoT

４．Minimize environmental impact

CO2 emissions decreased by about 40% compared to current ATMs.

Annual Electricity Consumption
CO2 Emmision

32 million kWh
16 thousand t-CO2

20 million kWh
10 thousand t-CO2

Current
ATM

Next-generation
ATM

Note: Number of ATMs installed Calculated by 25 thousand units

■Others (demonstration tests)

１．Opening of an account with a Next-generation ATM (For Seven Bank bank account, scheduled for late October 2019)

Demonstration test to open an account: necessary information is registered in advance and provided to a smartphone, QR codes are read at an ATM, and identities are confirmed.

２．Installation of seismometers

The National Research Institute for Earth Science and Disaster Resilience, SEVEN-ELEVEN JAPAN CO., LTD., and Seven Bank, Ltd. will install seismometers in Next-generation ATMs and share data for assessing disaster situations and enhancing responses.

*The QR Code is a registered trademark of DENSO WAVE CORPORATION