



SHOEI

Fuji Xerox Co., Ltd. SHOEI Printing Co., Ltd.

SHOEI Printing to Start Digital Security Service Spring 2018 Utilizing Fuji Xerox's Yoctrace, an Object Recognition Technology

For Use in Enhancing Security for Virtual Currencies and in Preventing Counterfeit of Securities and ID Cards

TOKYO, August 8, 2017 - SHOEI Printing Co., Ltd. will launch five digital security services in spring of 2018, including advanced authenticity assessment and authentication, by leveraging <u>Yoctrace</u>, an object recognition technology developed by Fuji Xerox Co., Ltd.

In 2002, Fuji Xerox developed the world's first individual paper recognition technology^{Note1}–the recognition is enabled by a general-purpose scanner. Since then, the company has continued research and development to apply this technology to other objects than paper in order to enable brand protection and authenticity assessment^{Note2}, which led to the development of Yoctrace.

On the other hand, as a printing company dedicated to security media, SHOEI Printing has been handling media printing using technologies for authenticity assessment and prevention of falsification since its establishment in 1907. Leveraging its knowledge and experience, it has been examining a new mechanism that prevents falsification by adopting new technologies that can address digitalization of printing technology.

Since January 2012, SHOEI Printing and Fuji Xerox have jointly pursued ways of service to prevent counterfeiting of securities and certificates of evidence in existing financial systems, as well as authentication service for identification (ID) cards and guarantee cards used for brand protection. As a result, Yoctrace was evaluated as a technology with a satisfied performance standard for commercial-use authenticity assessment, and Fuji Xerox commenced providing its license to SHOEI Printing in April 2017.

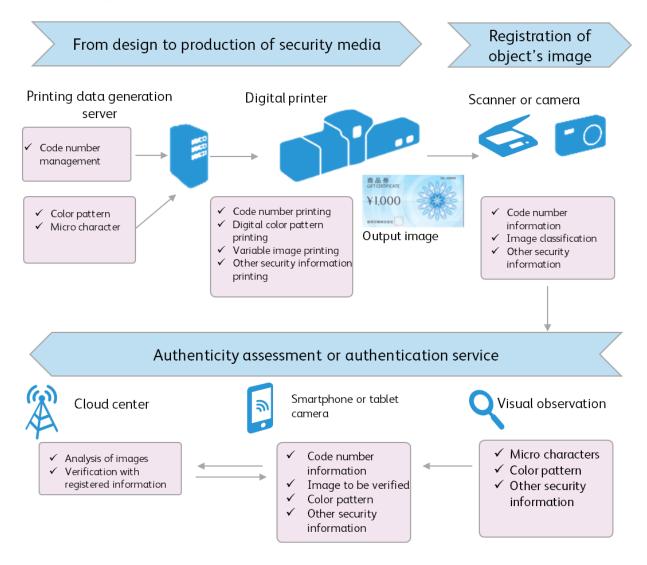
SHOEI Printing's five digital security services for authenticity assessment and authentication to be released in spring of 2018 are as follows.

- 1. Service for paper-based media or non-face-to-face identity verification regarding virtual and local currencies
- 2. Service for electronic-based tax payment certificates and payment certificates
- 3. Service for securities such as valuable stock securities and certificates of evidence
- 4. Service for media to protect brand
- 5. Simplification of automatic ID recognition technology in ID card systems and advanced service for falsification prevention by combining with existing technologies

Further, together with CurrencyPort Limited^{Note3}, by the end of this fiscal year 2017, SHOEI Printing plans to commence proving tests of digital security services leveraging Yoctrace—to realize provision of identity verification solution in virtual currency business related to the above-mentioned No. 1, using blockchain^{Note4} technology.

Fuji Xerox and SHOEI Printing will closely cooperate with each other toward practical application of digital security services that use Yoctrace.

SHOEI Printing's service overview



About Yoctrace

Fuji Xerox's Yoctrace, an object recognition technology, is a technology that recognizes each object using random patterns that was inadvertently generated on the surface of objects such as industrial products in the production process. It realizes highly accurate authenticity assessment due to an original image processing algorithm. Yoctrace is a coined term that combines "Yocto", indicating "10⁻²⁴" the smallest System International (SI) unit and "Trace". It indicates that the accuracy of the unique identification of this technology is extremely high.

- Note1: According to Fuji Xerox research
- Note2: According to the Organization for Economic Co-operation and Development (OECD), the total value of counterfeit and pirated products in the world has reached nearly 500 billion US dollars (announced in April 2016). It has become a social problem across the globe, as number of problems due to counterfeit gift cards and tickets is increasing year by year.
- Note3: CurrencyPort Limited (Representative Director CEO: Yasunori Sugii; established in 2015; Otemachi Building 4F, 1-6-1 Otemachi, Chiyoda-ku, Tokyo) engages in virtual currency business and local currency business based on block chain technology, and holds the potential of becoming a powerful player for new financial services in Japan.
- Note4: Distributed database that is used to maintain a continuously growing list of ordered records called blocks

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About Fuji Xerox

Fuji Xerox Co., Ltd. is a 75-25 joint venture between FUJIFILM Holdings Corporation and Xerox Corporation (U.S.A.) that develops, manufactures and markets world-class office and publishing equipment/systems, digital color/monochrome multifunction devices, as well as document management software, solutions and services in Japan and the Asia-Pacific region including China. It also manufactures digital copiers, multifunction devices and printers for worldwide distribution. Founded in 1962, the company currently employs approximately 47,000 people globally, and has more than 80 domestic and overseas affiliates and sales subsidiaries

http://www.fujixerox.com/

About SHOEI Printing

SHOEI Printing was established in 1907 as a printing company dedicated to "security media". It uses its know-how of advanced color-pattern printing, magnetic character printing, magnetic stripe processing, advanced code number management and personal information data management to provide manufacturing and issuance of financial IC cards, manufacturing of oversees transportation IC cards, ATM-compatible bankbook using special bookbinding technology, bill and check paper compatible with automatic processing systems, paper media such as bonds issued by local governments, stock certificates of companies, complimentary tickets for stockholders, gift certificates, local premium gift certificates and sales promotion coupons, and plastic media such as cash cards, credit cards and point cards, widely to the society. https://www.shoei-printing.com/

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