

Press Release

PKO Bank Polski is the first bank in Europe to implement a durable medium combining blockchain, WORM matrix and cloud technologies.

A durable medium is entering a new stage of development in Poland. Thanks to the unique combination of blockchain technology and WORM storage in the cloud, the solution created by KIR¹ in partnership with Hitachi and with the participation of OChK² and IBM can be used by Polish companies for fast and secure electronic distribution of private documents. PKO Bank Polski³ was the first to make this tool available in contacts with its clients.

Durable medium is the future of digitization when it comes to contacts with customers. Under regulatory requirements, the tool ensures that documents are invariable and irremovable, while alerting the users to any instances of their dispatching. It enables each and every customer document, from the first version to the latest, to be stored in a safe and secure way and to be accessible at any time from anywhere, even after the end of the contract. Thanks to the cooperation of KIR, Hitachi, Operator Chmury Krajowej (OChK) and IBM, the first such cloud-based solution is now available in Poland, uniquely combining blockchain and WORM technologies.

A durable medium allows the distribution of private documents relating to specific users, in compliance with all legal requirements, including GDPR. The clients of a given institution will be able to log in to a dedicated portal and immediately gain access to all information. What's more, they will also be able to make sure that files have not been changed without their knowledge - this functionality is supported by blockchain technology.

Durable medium from KIR

In 2018, KIR, together with PKO Bank Polski, IBM and Accenture, developed a durable medium using blockchain technology. Its implementation at PKO Bank Polski was the first practical implementation of this technology in the Polish financial sector. Due to the legal conditions related to distributed registers, this version of the durable medium could only be used for the distribution of non-individualized public documents, such as banking regulations.

KIR's durable medium is available in a full range of functionalities. The launch of a version based not only on blockchain, but also on an object storage with WORM technology, makes it a tool that meets all legal requirements for the distribution of bank documents in Poland. Its usefulness can also be used by companies from many other industries that have and use sensitive information. In addition to banking, these include medical, telecommunications and insurance sectors.

"The latest version of a durable medium from KIR is a versatile tool that offers comprehensive electronic distribution of documents of all types. Thanks to the simultaneous use of the WORM storage in cloud, blockchain technology and trust services, a system unique on a European scale was created. Our solution enables safe and

¹ Krajowa Izba Rozliczeniowa S.A. (KIR) – national clearing house, an infrastructural institution of the Polish banking sector, operating pursuant to Article 67 of the Banking Law, whose priority area of operation is settlement and payment services, provided under electronic systems.

² Domestic Cloud Provider (OChK) - the most specialized provider of cloud computing solutions on the Polish market. The goal is to accelerate the digital transformation of Polish enterprises and public institutions.

³ PKO Bank Polski (PKO BP) - the largest universal bank in Poland.

convenient transmission of public information, such as price lists and service regulations, as well as private documents assigned to specific users. The first implementation of this solution in the largest retail bank on the market is an indication of further dynamic development of digitization processes in the Polish economy” - says Piotr Alicki, President of the Management Board of KIR.

How does KIR's new durable service work?

The use of blockchain technology enables easy verification of the originality of documents, both by any interested entity and a private person, in a dedicated service portal. The immutability of each document is controlled by the electronic decentralized register from the beginning of the solution's operation. The durable medium uses a retention module that allows you to store documents for the time required by regulations. The requirement of invariability and immovability of documents is ensured by the WORM storage. The key element of the solution is also the business engine, i.e. the service layer integrating WORM and blockchain technologies, and the presentation layer (bank's internet banking, KIR portal) implementing all necessary processes related to the publication of documents on a durable medium. Thanks to this combination of several technologies, the new durable medium service from KIR meets all the conditions set by the regulator and may replace other forms of paper communication. Thus, it opens banks in Poland for a digital tomorrow, helping them to replace traditional methods of contacting customers with fully electronic solutions.

The practical and cost-effective implementation of this solution by end-users is possible thanks to Operator Chmury Krajowej, which has implemented one of the largest WORM storage instances in the country in its two processing centers. OChK not only provides secure storage for WORM, but also provides a comprehensive container platform for a durable medium business application.

The private blockchain network functioning in the solution was created in cooperation with IBM Poland. The use of the opensource Hyperledger Fabric technology guarantees the bank's transparency towards the client.

“The heart of the solution is the WORM (Write once, read many) object storage from Hitachi, which ensures the immutability and immovability of the documents stored on it, as well as the invariability of the metadata describing them, while maintaining the requirements of the GDPR” - explains Tadeusz Woszczyński, Country Manager Poland, Austria, Czech Rep., Slovakia & Baltics at Hitachi Europe Ltd. “As part of the project with KIR, we also delivered a HCPortal application, which is the business engine of the solution. Everything has been implemented in the cloud and integrated with the HLF blockchain network, in which the checksum of published documents is stored. Thanks to this connection, the bank's client can be sure that the document, e.g. a statement, has not been subjected to any interference - which can be confirmed at any time by verification - and at the same time has constant, easy access to it. I am glad that thanks to the good cooperation of the project teams of PKO Bank Polski, KIR, Hitachi and OChK, we managed to implement this unique solution in the largest bank in Poland” - adds Tadeusz Woszczyński.

First implementation

PKO Bank Polski is the first bank in Poland to use the full functionality of a durable medium in such a unique configuration. Thanks to the service, customers can receive credit card statements electronically, in a way that guarantees their immutability and access to them also after the end of the customer's relationship with the bank.

“For two years now, PKO Bank Polski clients have been receiving product regulations on a durable medium based on blockchain technology. So far, the tool has allowed documents to be made available more than 11 million times, which gave the bank savings of PLN 20 million and significantly reduced paper consumption. In recent years, the bank's technological capabilities have dynamically increased, which allowed us to implement another solution together with KIR - a durable medium for private documents. It uses cloud solutions and blockchain

technology, which allows for quick and secure delivery of private documents generated for individual clients” - says Adam Marciniak, Vice President of the Management Board of PKO Bank Polski.

KIR was established on the initiative of the National Bank of Poland, the Polish Bank Association and 16 commercial banks to digitize and professionalize interbank settlements in Poland. It is a key company supporting the infrastructure of the Polish banking sector. It ensures reliability and security of the services provided, striving to effectively support the development of cashless transactions.

Using unique competencies and experience on the Polish market, KIR develops and provides system solutions tailored to the needs of the banking sector and actively participates in the digitization of public services and economic processes.

For more information, please go to: www.kir.pl

Contact for media:

Anna Olszewska

Press spokesman

phone no. (22) 545 53 60, 691 890 584

e-mail: anna.olszewska@kir.pl

About Hitachi Europe Ltd.

Hitachi Europe Ltd. is a subsidiary of Hitachi Ltd., based in Maidenhead in the United Kingdom. The company focuses its activities on Social Innovation Business, by providing innovations that respond to the needs of society. By conducting operational activities and own research and development laboratories in the EMEA region, Hitachi Europe Ltd. and its subsidiaries offer a wide range of IT and telecommunication systems: railway systems, energy and industrial systems, industrial components and equipment, systems for the automotive industry, digital media, consumer products, and others.

For more information, please go to www.hitachi.eu

About Hitachi Europe Ltd. w Polsce

Polish branch office of Hitachi Europe is an important supplier to the Polish banking sector, providing, among other enterprise and midrange class storage systems, paperless systems, ID management solutions and biometric systems, IT&security consulting or regulatory solutions (RegTech). The Polish team of Hitachi Europe solved the problem of durable media by developing and implementing a solution based on the WORM matrix. Since 2007, the branch cooperates with the Polish Bank Association.

For more information, go to www.hitachi.pl

Contact for media:

Dorota Sacewicz

phone no. +48 784 815 998

e-mail: dorota.sacewicz@hitachi-eu.com