

Rigorous test for KfW's third blockchain bond: Lessons Learned

24th September 2026 // Authors: Tim Meirer and Bert Staufenbiel, Financial Markets, KfW

The first-ever change of both the registrar and the blockchain during the term of a crypto security in Germany demonstrates the robustness of digital capital market infrastructure while also underlining the importance of common standards for its further scalability.

Motivation for conducting the rigorous test

We conducted the rigorous test to examine, under real-life conditions, whether both the registrar and the underlying blockchain can be changed reliably during the lifecycle of a crypto security. Our objective was to demonstrate that digital DLT-based capital market infrastructure functions smoothly from both a technical and legal perspective under the German Electronic Securities Act (eWpG), including in the interaction between different systems. At the same time, the test was intended to identify the prerequisites still required for broader use – in particular, common technical standards and interoperability to enable future registrar changes to be implemented more easily and at scale.

Description of the rigorous test process

The rigorous test involved changing the register and the entity maintaining the register; at the same time, the underlying blockchain was also replaced (see Fig. 1). Specifically, responsibility for maintaining the crypto securities register was transferred from Cashlink to DekaBank. The underlying blockchain was changed from Polygon PoS to SWIAT/Regulated Layer One (RL1). DZ BANK remained the collectively registered holder of the bond throughout the process. Nothing changed for investors as a result of the registrar change. The change of the securities register was carried out on the basis of the provisions of Section 22 eWpG.

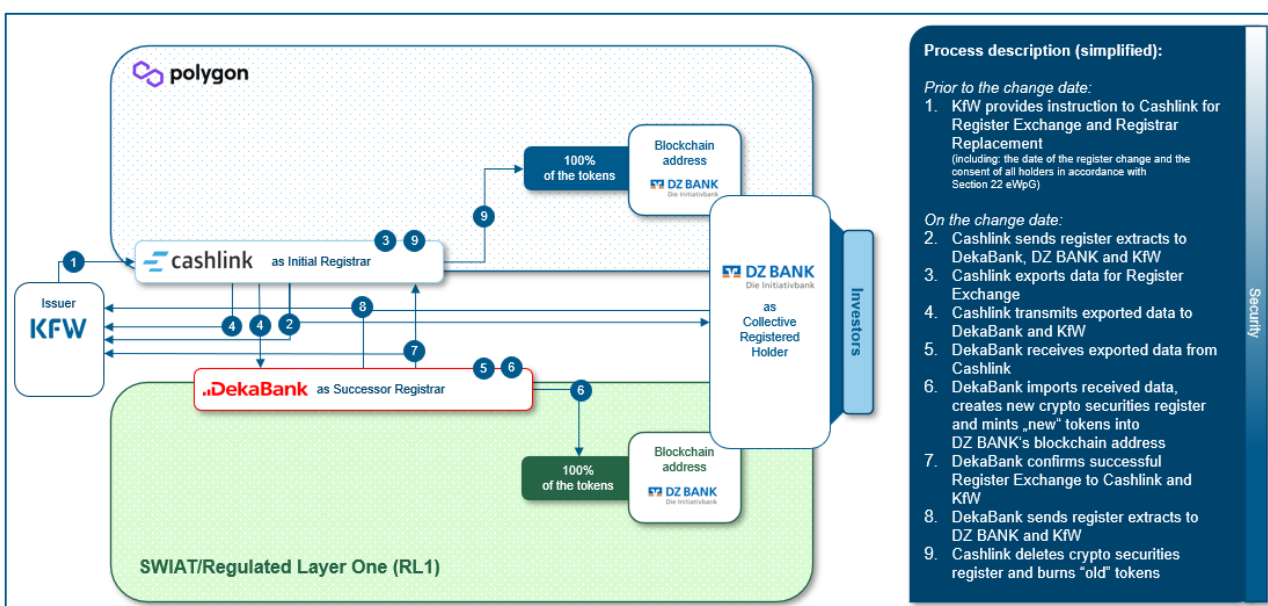


Fig. 1: Schematic illustration of the registrar change process

For the operational process, it was important to implement key preparatory measures in advance, in particular to obtain the “consent of all holders of the crypto security” pursuant to Section 22 eWpG. Therefore, DZ BANK’s consent in its capacity as collectively registered holder was obtained before the change was implemented. The operational focus of the rigorous test was to transfer responsibility for maintaining the register in an orderly manner from the previous registrar to the new registrar, while ensuring the continuity of the crypto security. The change therefore concerned the technical and organisational maintenance of the register. It did not alter the legal position of the holder or the economic position of the investors.

The operational implementation took place in two closely coordinated steps: DekaBank, as the successor registrar, took over the register data from Cashlink and created the new token representation (“re-minting” of the tokens) on SWIAT/RL1. Immediately thereafter, Cashlink, as the previous registrar, deleted the former register and destroyed the old tokens on Polygon PoS (“burning”).

Preparation of the registrar change: Before the actual change, the organisational and legal prerequisites were established. KfW instructed Cashlink to prepare and implement the registrar change and the replacement of the registrar. The instruction included, in particular, the planned date of the change and a template for the holder’s consent pursuant to Section 22 eWpG. It was also stipulated that DekaBank, as successor registrar, would maintain the new crypto securities register on SWIAT/RL1. DZ BANK remained unchanged as the collectively registered holder; its blockchain address was also to serve as the relevant destination address for the entire token holding in the new system. Another essential element of the preparation was to ensure that the data from the previous register could be made available in full as part of the export from Cashlink and in a format that could be used by DekaBank. In addition to the data required for token representation, this included register-related information necessary for the continuation of the crypto security.

Implementation on the day of the rigorous test: The registrar change was carried out on 23rd September 2026 and took approximately 1.5-2 hours. The key operational steps were as follows:

- *Provision of register information:* Cashlink first provided the relevant register information and transmitted register extracts to DekaBank, DZ BANK and KfW. This gave all key parties involved a common information base regarding the status of the previous register immediately before the change. Cashlink then exported the data required for the registrar change from the existing crypto securities register. The export formed the basis for establishing the new register at DekaBank.
- *Transfer of data to the successor registrar:* Cashlink transmitted the exported data to DekaBank. DekaBank took over the data in its capacity as successor registrar, reviewed and processed it for import into the new crypto securities register. As Polygon PoS and SWIAT/RL1 used different token standards at that time, a direct technical transfer of the existing tokens was not possible. The change was therefore not implemented by directly moving the old tokens, but through a coordinated process of new issuance (“re-minting”) and deletion (“burning”).
- *Establishment of the new register:* Based on the register data and instructions provided, DekaBank created a new entry in its crypto securities register on SWIAT/RL1. New tokens were subsequently created in the new register. These new tokens represented the same bond holding as before and were recorded at the blockchain address of DZ BANK in its capacity as collectively registered holder. The entire holding was therefore transparently and unambiguously allocated to the existing holder in the new system.
- *Confirmation of the successful change:* Following completion of the import and the creation of the new tokens, DekaBank confirmed the successful registrar change to Cashlink and KfW. This confirmation documented that
 - the register data had been successfully transferred;
 - the new crypto securities register had been established;
 - the new tokens had been created (“re-minting”); and
 - the bond holding had been recorded at DZ BANK’s tenant address on SWIAT/RL1.

DekaBank subsequently provided register extracts to Cashlink, DZ BANK and KfW. This enabled the new register status to be reconciled with the previously documented status.

- *Deletion of the previous register and destruction of the old tokens:* Following confirmation by DekaBank that the transfer had been completed successfully, Cashlink, as the previous registrar, deleted the existing crypto securities register. At the same time, the tokens previously held on Polygon PoS were

destroyed (“burning”). This burning process ensured that the old tokens did not continue to exist in parallel with the newly created tokens. The rigorous test was thereby completed from a technical and organisational perspective.

Lessons Learned

The successful implementation of the rigorous test demonstrated that a change of registrar and underlying blockchain can be carried out under real-life conditions during the term of a crypto security. The transfer of the register data, the establishment of a new register, the creation of new tokens, and the subsequent deletion of the previous register and old tokens all functioned properly from both a technical and legal perspective. It took approximately 1.5–2 hours to carry out the operational implementation on the day of the rigorous test.

For the secure implementation of the rigorous test, the following aspects were particularly relevant:

- *Obtaining the holder’s prior consent:* DZ BANK’s consent to the registrar change pursuant to Section 22 eWpG was an important prerequisite for implementation.
- *Ensuring compatibility of register data between the crypto securities registrars involved:* The register extracts provided by Cashlink served as the basis for creating the new entry in DekaBank’s crypto securities register.
- *Requirement for blockchain or tenant addresses for the collectively registered holder:* A key prerequisite for the successful transfer of token holdings was that DZ BANK, in its capacity as collectively registered holder, had a blockchain or tenant address on both blockchains.
- *Continuous, open and constructive dialogue between all institutions involved:* Given the number of institutions involved, solution-oriented communication was a decisive criterion for successful implementation – particularly during the preparation phase, including testing and trial runs.
- *Standardised instruction forms:* Standardised instruction forms were of particular importance in order to ensure swift operational readiness in a potential ad hoc situation in which a registrar change may be required at short notice, and to make the inter-institutional coordination process more efficient.

The key technical finding of the rigorous test was that the two DLT systems involved do not currently share a common technical basis for direct token transfers. The token standard used by Cashlink on Polygon PoS is ERC-20, whereas the token standard used by DekaBank on SWIAT/RL1 is ERC-7722. These two token standards are not sufficiently compatible to enable a direct technical transfer of the existing tokens. This is why the change was implemented in accordance with the “re-mint-and-burn” principle. This approach ensured that the economically and legally relevant holding was retained, even though the technical token representation was recreated in its entirety.

A direct technical transfer of the existing tokens would be more efficient and would be the preferred approach, particularly with a view to the further scaling of DLT-based financial markets. However, it would require common token standards and interoperable interfaces between the DLT systems involved.

Disclaimer: This document and the information contained herein do not constitute an offer of securities for purchase or sale, nor shall they be construed as a basis for contractual or any other obligation or undertaking. The securities mentioned herein have not been and will not be registered pursuant to the U.S. Securities Act of 1933 and may not be offered or sold in the United States absent such registration or an exemption from registration of the U.S. Securities Act.