



## Introduction

This article considers how EU and German civil and regulatory law approaches crypto assets as well as how those types of crypto assets are dealt with in an insolvency.

Assets issued or transferred via distributed ledger technology (**DLT**) or blockchain are known as crypto assets. DLT makes it possible for peers on a network, each of whom has a complete copy of the ledger, to concurrently view, verify and update transactions involving crypto assets on a decentralised ledger. Blockchain technology is a peer-to-peer DLT safeguarded by encryption. It is intended to be immutable and appended-only, meaning that once data and transactions are added, they cannot be taken out and can only be altered by consensus among peers. Crypto assets can be exchanged for other crypto assets or for traditional currency (such as US\$ or €) at crypto asset trading platforms and other intermediaries. Most crypto assets are utilised for payment as a novel means of raising capital and as potential investments.

Notably, transferring crypto assets requires an authorisation in the form of a cryptographically signed message by the initiator. The signature, produced by a private key, represents the user's permission for the DLT to request a ledger entry reflecting the change in possession. A valid signature provides the cryptographic assurance to the DLT system and its participants that the transaction initiator has the authorisation to enact a corresponding ledger entry. If accepted, the ledger is updated in a way that a particular crypto asset is associated with the (typically pseudonymous) public key of a particular user. In this context, the private key can be compared to a password that unlocks the user account, whereas the associated public key (and the derived address) resembles a user account number.

However, a valid signature does not automatically provide proof that the owner of the corresponding private key has produced the signature. Instead, it provides a guarantee that a holder of the private key has initiated the transaction. Therefore, the use of a private key underpins the presumption that a transaction has been authorised. Furthermore, in the context of crypto assets, the notion of custody thus no longer refers to the direct holding of assets, but to the secure storage of cryptographic keys. Despite this functional equivalence, it is far from straightforward that (exclusive) knowledge of a private key is for all purposes equivalent to legal ownership of the certain crypto assets.

Apparently, as described in more detail in my previous article (see e.g. <https://www.restructuring-globalview.com/2020/04/german-law-aspects-of-crypto-assets/>), global legal systems take divergent approaches to the concept of property which is essential for the legal aspects of ownership of objects. Three broad approaches can be named in the world's major legal systems:

- Common law jurisdictions use categories of things that can be owned and transferred like other types of personal property.
- Most civil jurisdictions treat certain rights as non-physical objects although a few stipulate that only physical objects qualify as "objects" that can be owned.
- Some civil jurisdictions, including German and Japanese law, have the most fundamental problems, as the recognition of any non-physical object as an object of property rights needs to circumvent this dogmatic axiom.

## Type of Crypto Assets

Crypto assets usually represent certain rights, such as cash-flow rights, or the right to access a future product or technology developed by the issuer. Based on how they operate, these crypto assets are generally divided into four categories:

- Asset tokens
- Utility tokens
- Payment tokens
- Hybrid tokens

Asset referenced tokens are crypto assets of non-governmental origin whose performance is linked to legal tender (e.g. US\$ or €) or other assets (e.g. securities, gold, other crypto assets). The idea is that a stable relationship is established between the token and the reference asset, and a wide variety of processes are used to try to achieve this. Payment tokens and crypto currencies are essentially the same thing. They are not issued by a central bank and can be subdivided into tokens without any intrinsic or reference value. Therefore, the only use of these tokens is for payment purposes. Another type of crypto asset is a utility token, which usually provides access to a technology, good or service that the issuer provides. Utility tokens can be very complex in terms of how they work and also how they are classified under supervisory law. When a token contains aspects of the other token kinds, it is called a hybrid token.



## Legal Nature of Crypto Assets From a European and German Legal Perspective

### 1. EU Regulatory Perspective

Crypto assets are designated as financial instruments if they align with the Markets in Financial Instruments Directive II (**MiFID II**) definition of “transferable securities.” For a crypto asset to be recognised as a transferable security under MiFID II, it must be negotiable, transferable and contain rights attached to securities in applying technology neutrality. Transferable securities, as defined by MiFID II, cover a wide-range of instruments such as shares and bonds or “other securities,” which are related to other securities, currencies, interest rates, commodities or other indices (i.e., securitised derivatives). Crypto assets that grant rights like shares, bonds or other securities (e.g., embedding a derivative) must be treated as a transferable security. This means that according to Article 4(1)(44) MiFID II, three criteria must be satisfied for a crypto asset to be deemed as a transferable security, it: (i) should be part of a “class of securities,” must be (ii) negotiable on the capital market and (iii) should not be an “instrument of payment.” This means:

- For crypto assets to form a class, the European Securities and Market Association (**ESMA**) recognises that they must confer similar rights to investors, ensuring their tradability on markets. To form a class, crypto assets are generally viewed as (i) interchangeable, (ii) issued by the same issuer, (iii) having similarities and (iv) grant equal rights to its holders.
- Negotiability, absent a harmonised definition in EU law, implies that for crypto assets to be transferable or tradable on markets (trading venues as well as Over-the-Counter (**OTC**) markets), even if certain (legal, market or technical) restrictions exist. ESMA also notes that “while, most member states interpret negotiability as potential transferability or tradability, some others separate the notion of transferability and negotiability by considering the notion of being “negotiable” as being “standardised.” ESMA states that National Competent Authorities (**NCA**s) and market participants should broadly interpret the concept of negotiability, including crypto assets, which are capable of being transferred or traded on markets.
- Importantly, “instruments of payment” are explicitly excluded from the scope of MiFID II. However, ESMA notes that the Payment Service Directive 2 (**PSD2**) definition of “payment instrument” is not fully aligned with the concept of financial instruments under MiFID II. It should be noted in this regard that the definition of financial instruments under MiFID II Annex I Section A (2) includes also money-market instruments (like treasury bills, certificates of deposit and commercial papers) that are characterised by their short-term nature. For a crypto asset to be classified as a money-market instrument under Article 4(1)(17) of MiFID II, it must exhibit characteristics like traditional money-market tools. This involves (i) having a legal and residual maturity as required for in the Money Market Funds Regulation (**MMFR**), (ii) exhibiting stable value and minimal volatility and (iii) aligning returns with short-term interest rates.



Furthermore, the Regulation (EU) 2023/1114 on Markets in Crypto-Assets ([Markets in Crypto-Assets Regulation – MiCAR](#)) distinguishes three types of crypto assets:

- The first type is the e-money token (**EMT**), which is a crypto-asset that aims to stabilise its value by referencing only one official currency.
- The second type is the asset-referenced token (**ART**), which aims to stabilise its value by referencing another value or right, or combination thereof, including one or several official currencies.
- Finally, the third type is a universal type, referring to all crypto assets other than ARTs and EMTs, and expressly including utility tokens.

MiCAR excludes certain crypto assets from its scope. This is the case for crypto assets that qualify as financial instruments under MiFID II (see above). To distinguish between crypto assets and financial instruments, ESMA, on 17 December 2024, published guidelines on the criteria and conditions for the qualification of crypto assets as financial instruments. According to ESMA, the qualification depends on specific characteristics and the specific nature of crypto assets. In addition, MiCAR shall also not apply to crypto assets that are unique and not fungible with other crypto assets, unless the features of the tokens make them either fungible or not unique.

## 2. German Regulatory Aspects

In Germany, the provision of certain crypto asset services (crypto asset custody) has been regulated since 2020 although the definition of these crypto asset services differs from the definitions under MiCAR. The very recent Act on the Digitalisation of the Financial Market ([Finanzmarktdigitalisierungsgesetz](#)) introduced the new Act on the Supervision of Markets for Crypto-Assets ([Kryptomärkte-Aufsichtsgesetz](#)), and amendments to other regulatory laws, e.g. on Anti-Money-Laundering (**AML**) issues. The German legislator thus introduced the necessary changes allowing for a smooth application of MiCAR in Germany and granting the German Financial Supervisory Authority (**BaFin**) the supervisory powers to enforce compliance with MiCAR rules and requirements.

The aforementioned Act also sets out detailed transitional provisions for crypto asset service providers, taking into consideration the license requirements already in place since 2020. Among others, authorised credit institutions and investment firms whose authorisations included on 29 December 2024 the provision of services related to crypto assets as defined by the version of the German Banking Act of 22 February 2023 (**KWG**), may continue to provide these services in compliance with the German regulatory requirements as applicable since 29 December 2024. Said authorisations are deemed to persist until these institutions have been granted an authorisation under MiCAR or have undergone the notification procedure referred to above of the Act on the Digitalisation of the Financial Market, but no longer than until 31 December 2025 (German grandfathering regime). Furthermore, entities providing crypto asset services in accordance with German law applicable prior to MiCAR entering into effect and until that moment, which are not subject to an authorisation requirement under German law, should have informally notified BaFin of these activities.

MiCAR will be complemented by a German Ordinance on the Transition of the Existing Legal Framework for Crypto-Assets ([Begleitende Verordnung zur Überführung des bestehenden Rechtsrahmens in Bezug auf Kryptowerte auf die Verordnung \(EU\) 2023/1114](#)). One part of this German Ordinance will introduce a simplified procedure for authorisation of those entities that have already been authorised under national law into German law to provide crypto asset services prior to the application of MiCAR. Furthermore, BaFin issued [Notices with Interpretative Information on Crypto-Asset Services under MiCAR](#) and [on the Authorisation Requirements for ART and EMT under MiCAR](#).

Additionally, the definition of crypto assets found in Section 1 (11) sentence 4 of the German Banking Act (**KWG**) reads as follows: “Digital representations of a value that has not been issued or guaranteed by any central bank or public body and does not have the legal status of a currency or money, but is accepted by natural or legal persons as a means of exchange or payment or serves investment purposes on the basis of an agreement or actual exercise and which is transmitted electronically, can be stored and traded.” This definition incorporates digital units of value like cash or payment tokens, which are also sometimes referred to as virtual currencies, and this is consistent with the EU definition found in the 5th EU Anti-Money Laundering Directive. E-money, interconnection payment systems and payment transactions made by providers of electronic communications networks or services are not considered crypto assets, nor are government-issued currencies.



Furthermore, crypto assets were considered financial instruments under Section 1 (11) sentence 1 no. 10 of the KWG. Section 1 (11) sentence 1 no. 10 of the KWG was created as a catch-all to prevent regulatory loopholes for virtual currencies because of their varied characteristics. As mentioned above, crypto assets are now classified as one of the other types of financial instruments under Section 1 (11) sentence 4 of the KWG as follows:

“Crypto assets are those within the meaning of Article 3(1) (5) of Regulation (EU) 2023/1114. Crypto assets within the meaning of this Act are not those pursuant to Article 4(3)(c) of Regulation (EU) 2023/1114. Derivatives are

1. Fixed transactions or option transactions structured as a purchase, exchange or otherwise, which are to be fulfilled with a time delay and whose value is derived directly or indirectly from the price or measure of an underlying asset (forward transactions) with reference to the following underlying assets:
  - a) Securities or money market instruments
  - b) Foreign exchange, unless the transaction fulfils the conditions of Article 10 of Delegated Regulation (EU) 2017/565, units of account or crypto assets
  - c) Interest rates or other income
  - d) Indices of the underlying assets referred to in points (a), (b), (c) or (f) other financial indices or financial measures
  - e) Derivatives
  - f) Emission allowances”

By establishing an electronic register of security holders, the German e-Securities Act ([Gesetz über elektronische Wertpapiere – eWpG](#)), which came into effect in 2021, has made it feasible to issue debt securities and (as of June 2022) fund units in German investment funds exclusively electronically. It is interesting to note that the eWpG permits “crypto securities” or decentralised securities using distributed ledger technology in addition to centrally registered e-securities. There is a legal “trick” making this possible: e-securities, including crypto securities, are considered movable property. As a result, crypto and e-securities can be transferred using the same book-entry method as conventional paper-based securities. Additionally, it sheds light on the rights to e-securities in cases of insolvency. Both centrally and de-centrally registered securities can be issued in single and collective form, which is like an electronic global certificate. The latter would be the best way to issue blockchain-based crypto securities.

The eWpG applies insofar as a securities classification is to be confirmed. Consequently, all the requirements of this law must be followed. The distinction between an electronic security’s “beneficiary” (*Berechtigter*) and “holder” (*Inhaber*) is a crucial idea in this regard. The owner of the security is the beneficiary, who may or may not be the same as the “holder,” who is listed in the registry of security holders (centrally or on the blockchain). A custodian or central custodian, for instance, might be listed in the register as the holder and book the security to a customer’s securities account. Without being the registered holder, the customer would then benefit from the crypto security.

### 3. German Civil Law Classification

Notably, the transfer of crypto assets is possible in various ways. For example, the crypto assets (e.g. coins and tokens) can be transferred by a mere real act (*Realakt*). Consequently, any rights or claims associated with the crypto assets are to be transferred by assignment, in accordance with Sections 413 and 398 of the German Civil Code (*Bürgerliches Gesetzbuch – BGB*). Thereby, it must be ensured that the crypto asset and the associated right are not transferred separately but uniformly.

In addition, the discussion has focused on whether crypto assets can be classified as “property”, and if so, what type of property. Due to the lack of physicality, crypto assets cannot be classified as objects (*Sachen*) within the meaning of Section 90 of the BGB. As such a qualification is not possible, crypto assets can consequently not be considered property in the sense of Sections 903 et subq. of the BGB pursuant to which property rights are defined as the ownership of objects. Similarly, the ownership of crypto assets cannot be transferred as per Section 929 of the BGB by means of agreement and transfer of ownership.

Nevertheless, there are other ways that provide a possibility for the transfer of crypto assets. One way would be the transference of digital crypto assets, e.g. coins and tokens, by a mere real act. This would lead to a transference of any rights or claims associated with the crypto assets by assignment pursuant to Sections 412 and 398 of the BGB.

Ultimately, with the eWpG, the German legislator has created the first use case for *in rem* tokenisation by anchoring electronic securities in property law through the equivalence regulation in Section 2 (2) of the eWpG. However, the concept remains controversial in terms of legal policy due to its link to property law and the lack of a transition to a system of uncertificated securities. Nevertheless, the connection between an external asset (e.g. claim, fund unit, share) and a blockchain token in a crypto security can be abstracted. A core problem lies in the fact that German property law is traditionally geared towards physical objects and therefore does not appear to be readily transferable to digital assets. Although the eWpG creates an initial legal basis for electronic securities, a comprehensive classification of crypto assets under property law remains under discussion. Questions of acquisition in good faith, transfer of ownership and protection against unauthorised access have not yet been conclusively regulated.

Despite the recent extension of the eWpG to include shares, its scope of application remains limited. Most assets – such as commercial law commodity or goods securities, as well as company participations outside of stock corporation law – remain excluded from digitalisation. Digitalised securities, on the other hand, could offer considerable efficiency gains and increased legal certainty in digital markets, particularly in the context of cross-border transactions. Germany therefore faces the challenge of further developing its securities law to enable a more comprehensive integration of crypto securities.

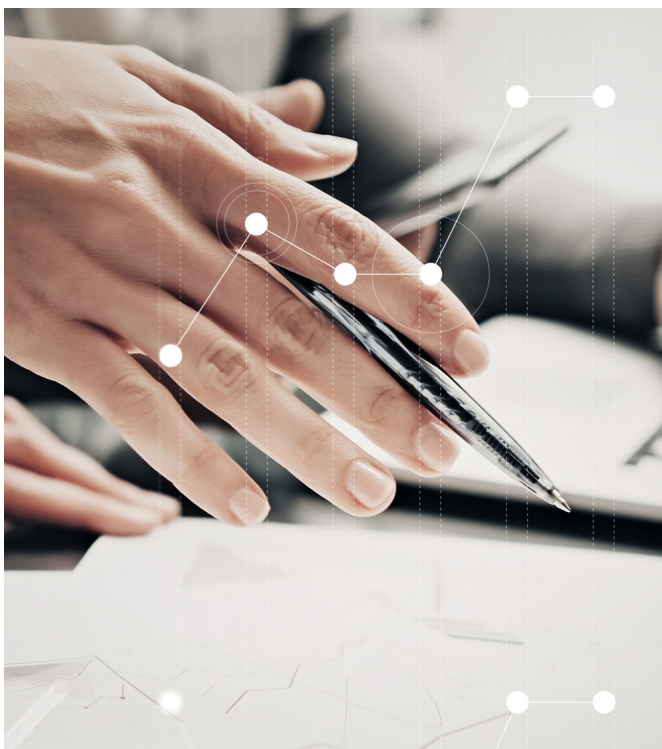
# Crypto Assets in Insolvency Proceedings

## 1. Introduction

When a company is unable to pay its debts, insolvency procedures may be initiated under EU and German law. One important question that comes up in those circumstances is whether crypto assets would be regarded as “debt” for the purposes of initiating insolvency proceedings, especially when the insolvency petition is initiated by a creditor and is typically based on a statutory demand for payment of an existing debt.

On the one hand, unless crypto assets were held for sale in the regular course of business, crypto assets will be listed as intangible assets on the debtor’s balance sheet if the debtor as a non-crypto company that has purchased them goes insolvent. In the end, the terms will determine whether these intangible assets belong to the non-crypto company’s estate property.

On the other hand, in terms of custody, there are several ways a company may hold its crypto assets. Some may be held with exchanges, some in wallets and some with providers of custody solutions. This is because, in such cases, the custody arrangement (subject to a custody fee) would provide for ownership to continue to vest in the estate. There would also typically be insurance arrangements in place if the crypto assets were to be lost because of security vulnerabilities and/or attacks. However, that is not to say that custody solutions are available in every case. While custody solutions are easily available in respect of standard crypto assets such as Bitcoin or Ethereum, there are cases where the crypto assets involved are not standard. Thus, crypto custodians limit the range of crypto assets they provide custody solutions for. In such scenarios, it may be the case that the insolvency administrator would have no choice but to leave the crypto assets in the relevant exchange account or wallet.



## 2. EU and German Insolvency Law Issues

Due to the cross-border nature of crypto assets, the applicable insolvency law needs to be clarified in advance. According to Article 7 (1) of the EU Insolvency Regulation, the insolvency law of that EU member state is generally applicable in which the insolvency proceedings were opened, unless a special insolvency regime is applicable. This can be the case, for example, if the crypto custodian operates other services parallelly, such as banking or financial services. Furthermore, the applicable insolvency law also determines which assets are to be attributed to the insolvency estate.

In the following, the insolvency law treatment of crypto assets under the German Insolvency Code (*Insolvenzordnung* – **InsO**) is examined. The assessment of the application of the German insolvency rules cannot be made without the legal classification of crypto assets. As outlined above, ownership of crypto assets presupposes the quality of the crypto assets as objects within the meaning of Section 90 of the BGB, which is, as described, not given. Further, crypto assets cannot be transferred on a physical data carrier as such crypto assets are only stored digitally, to the extent that this is done for the classification of computer programs under the law of obligations. On a wallet file, which is saved on an external data storage provider, only the private keys are stored, not the crypto assets.

Crypto assets also do not constitute a claim against another party. There exists no indispensable opposing party in a DTL. There is also no central instance to which the crypto asset owner can address any issues, nor can a claim arise against other members of the crypto asset ledger, as there is a lack of the necessary will to legally bind all the DTL parties. The members of the peer-to-peer network can be regarded as nonbinding association of persons who wish to use, e.g. the crypto currency for their means of payment. Qualification of the participants as a partnership under legal aspects is in principle not possible for precisely these reasons. As a result, crypto assets must be classified as intangible assets, as mentioned above.

However, the classification of crypto assets in accordance with Sections 35 to 55 of the InsO is important for the insolvency proceedings. Notably, crypto assets, in accordance with Section 35 (1) of the InsO, are part of the insolvency estate because their value can be determined. Furthermore, crypto assets are also not unseizable objects (*unpfändbare Gegenstände*) pursuant to Section 36 (1) sentence 1 of the InsO. Crypto assets are subject to enforcement as they are classified as “other property rights” (“*andere Vermögenswerte*”) in accordance with Section 857 (1) of the German Code of Civil Procedure (*Zivilprozessordnung* – **ZPO**). Due to the classification of crypto assets as a part of the insolvency asset according to Section 35 (1) of the InsO, it is important for a customer of a crypto custodian (*Kryptoverwahrer*) to be able to segregate (*aussondern*) his crypto assets according to Section 47 of the InsO by differentiating between crypto assets of customers and the ones of the crypto custodian.

A segregation can be considered if an item (*Gegenstand*) (and not necessarily an object (*Sache*) within the meaning of Section 90 of the BGB) does not belong to the insolvency estate due to an existing right *in rem* or personal right, as it cannot be assigned to the debtor in accordance with Section 35 of the InsO. In addition to objects, the term "item" also includes rights, claims, securities and digital assets, meaning that crypto assets are also generally covered by this. Another prerequisite for successful segregation is that the assets concerned are identified or at least identifiable. Crypto assets may be eligible for segregation if they are attributable to the customer and can be specifically identified.

In addition, according to Section 45 of the newly in 2024 enacted German Crypto Market Supervision Act ([Kryptomärkteaufsichtsgesetz – KMAG](#)) and Section 46i of the KWG, a crypto asset held in custody for a customer as part of crypto custody is deemed to belong to the customer, if the customer has not given consent to dispose of the value held in custody for the account of the institution.

This shall also apply accordingly to the share of crypto assets in joint custody to which the customer is entitled and to private cryptographic keys held in isolated custody. Both legal provisions stipulate that crypto assets held in custody by the institution shall be segregated during insolvency proceedings to the respective customer, either by transfer to another custodian to be determined by the institution or otherwise at the customer's expense.

Therefore, it is clarified that the customer has a right of segregation in accordance with Section 47 of the InsO in case of a custodian's insolvency. In addition, MICAR also stipulates in Article 70 the obligation of the crypto asset service provider which holds crypto assets for its customers to safeguard the ownership rights of customers, preventing the use of customers' crypto assets for the provider's own account, especially in the event of the provider's insolvency.

In line with the above, according to Section 26b of the KWG, an institution that operates the qualified crypto custody business must ensure that the cryptographic instruments and private cryptographic keys of the customers are held separately from the ones of the institution and can be determined. The same applies to cryptographic instruments of several customers if they are held in joint custody. The institution must ensure that the customer's cryptographic instruments and private cryptographic keys held in custody cannot be disposed of for the institutor's own without prior customer's consent.

However, it is unclear how the right of segregation according to Section 46i of the KWG relates to the obligation to separate the assets according to Section 26b of the KWG. The question arises if the customer's right of segregation still exists if the institution did not comply with its obligation to separate in accordance with Section 26b of the KWG.

According to the meaning and purpose of the provisions that provide for customer protection when trading in crypto assets, it can be well argued that the customer's right to segregation exists irrespective of the actual separation of assets by the institution especially when the obligation of separation is to be considered as a supervisory provision solely obligating the institution and not its customer. Notably, according to Article 75 of MICAR, the crypto asset service provider which is providing crypto asset custody services is also obligated to ensure the separation of the customer's crypto assets from the crypto service provider's assets.

Due to the mandatory separation of the shares of the crypto assets and the cryptographic keys held in custody of the institution and the customer pursuant to Section 45 of the KMAG and Section 46i of the KWG, crypto assets can be attributed to the customer and identified. Therefore, the crypto assets of the customer held in custody of the crypto custody provider are under special protection during a insolvency of the crypto custody provider.



## Recovery of Crypto Assets

The tracing and recovery of crypto assets is particularly difficult due to their digital nature. The fact that certain crypto asset exchanges might not have strong corporate governance or maintain accurate accounting records can make these issues worse.

Additionally, because crypto asset transactions are anonymous, it can be challenging for insolvency administrators to investigate a company's crypto assets, particularly if those crypto assets were transferred out of the company before insolvency. In these situations, insolvency administrators usually hire forensic companies to investigate the transfer of these crypto assets. Even if the owner of the crypto assets cannot be identified, the required legal actions can still be taken if they are able to locate the company's crypto assets.

According to German law, if crypto assets are found in a specific wallet but the wallet's owner or controller is unknown, legal action may be taken against "persons unknown" to obtain a court injunction on the assets. Such legal action may help with the recovery process and it offers some protection, but only if the wallet's owner or controller has transferred the crypto assets the actual physical recovery can take place.

Furthermore, because the value of crypto assets fluctuates, insolvency administrators who use liquidation procedures usually get the required approvals to liquidate such assets without delay to maintain the estate's value. However, it might be difficult for insolvency administrators to extract value from some crypto assets, especially from some tokens which cannot be exchanged on centralised exchanges. Although decentralised exchanges that offer a venue for trading these tokens might exist, the respective platform might not have enough liquidity or buy orders.

In such situations, it may be the case that the only way to realise monetary value from such crypto assets is a private or OTC sale. There will be practical difficulties with sourcing a willing buyer as well as identifying an appropriate sale price. Finally, in some cases, the insolvency administrator might be able to sell the crypto assets to the company's creditors or other purchasing crypto assets companies.

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