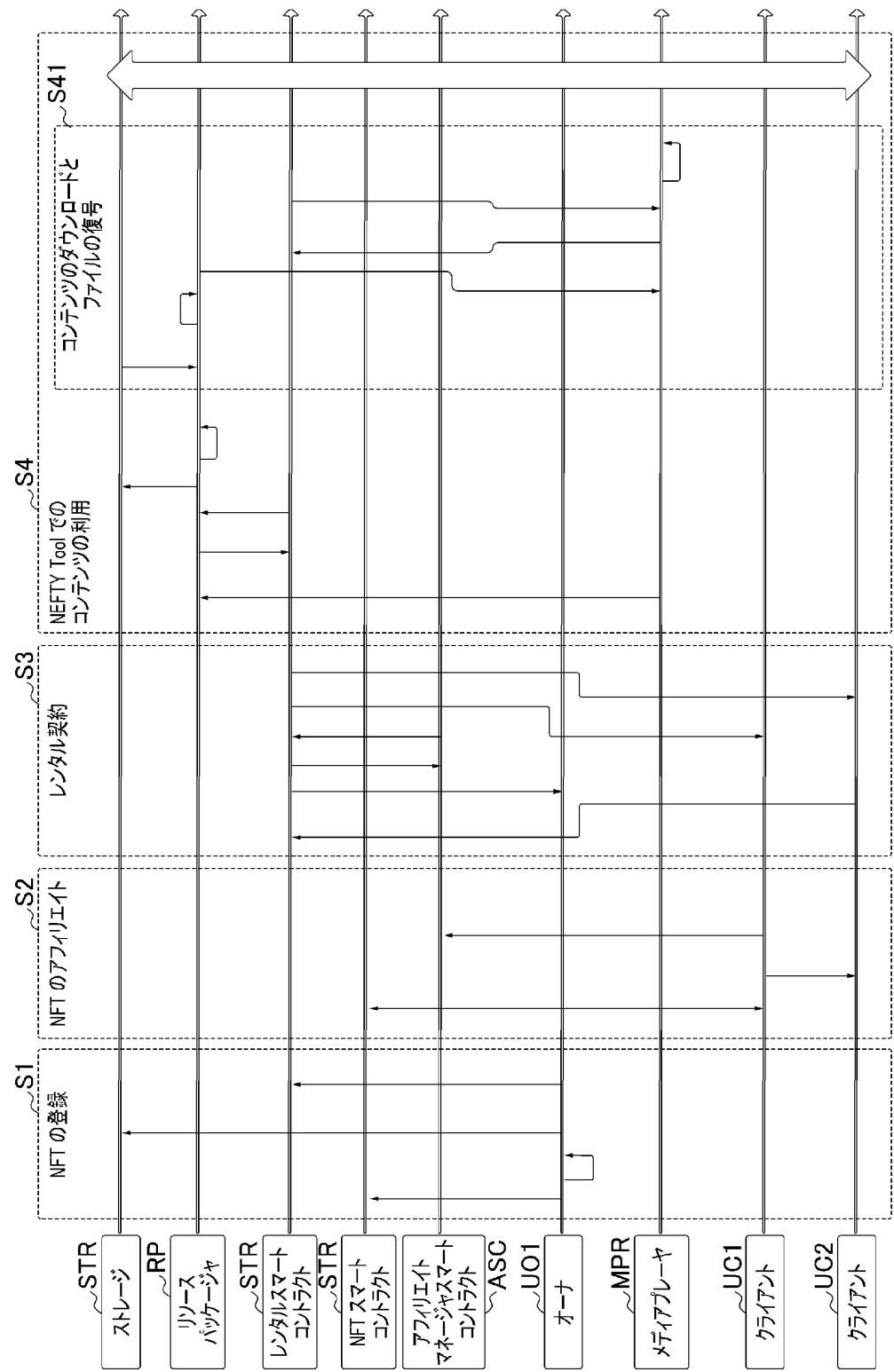


The diagram illustrates a system architecture divided into five horizontal layers, connected by dashed lines:

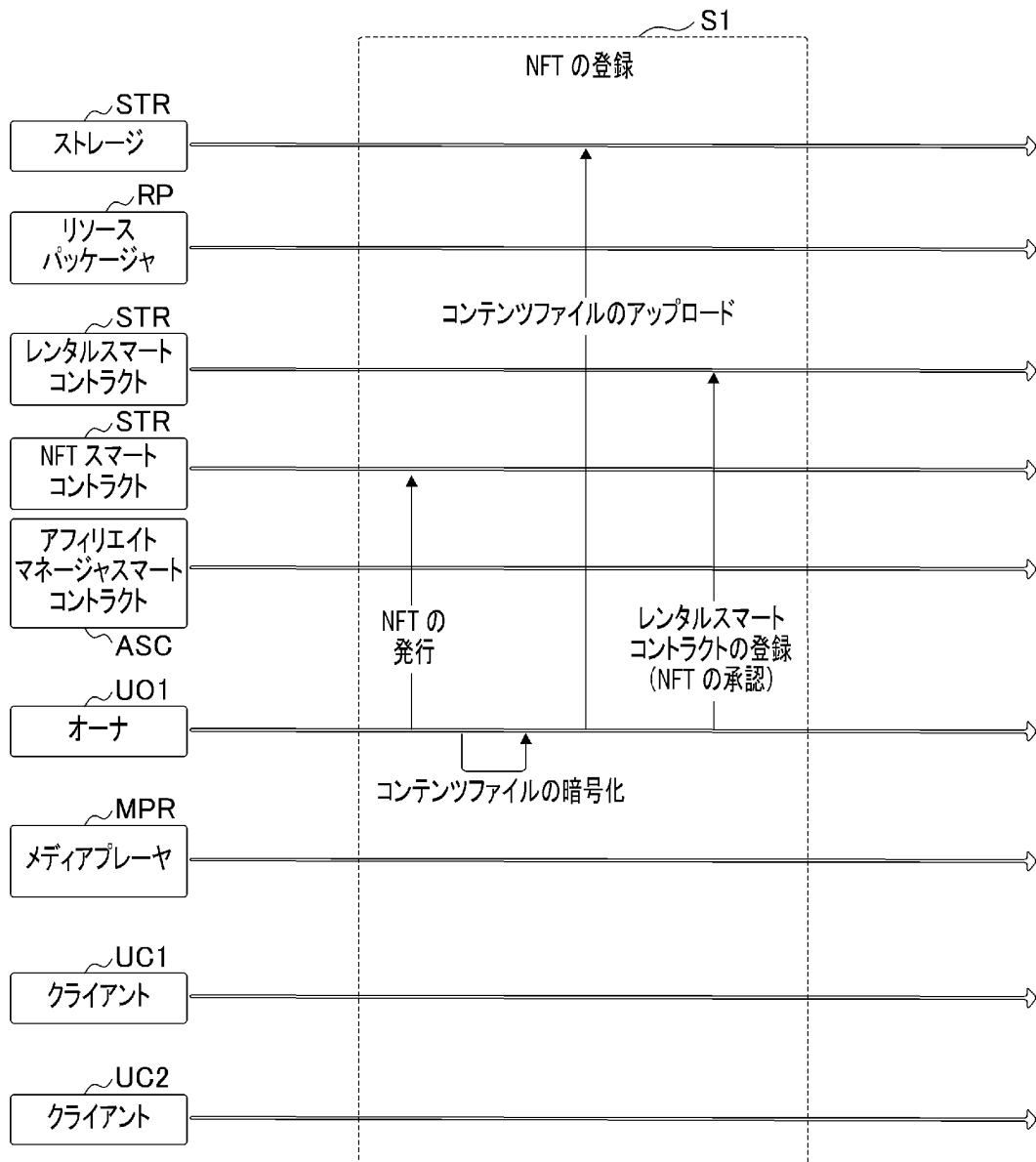
- MP (Marketplace):** Contains components for market transactions. It includes a 'Marketplace System' (MPR) and a 'Storage System' (STR). The 'Marketplace System' handles 'NFT Issuance' and 'NFT Listing'. The 'Storage System' handles 'Content Registration' and 'Content Retrieval'. Data flows from 'User 1-O1' and 'User 1-O2' into the 'Marketplace System'.
- STR (Storage):** Contains a 'Storage System' (STR) and a 'Database' (DB). The 'Storage System' handles 'Content Registration' and 'Content Retrieval'. The 'Database' stores 'Content Registration' and 'Content Retrieval' data. Data flows from 'User 1-O1' and 'User 1-O2' into the 'Storage System'.
- MPR (Media Player):** Contains a 'Media Player' (MPR) and a 'Database' (DB). The 'Media Player' handles 'Content Registration' and 'Content Retrieval'. The 'Database' stores 'Content Registration' and 'Content Retrieval' data. Data flows from 'User 1-O1' and 'User 1-O2' into the 'Media Player'.
- BC (Blockchain):** Contains a 'Blockchain' (BC) and a 'Database' (DB). The 'Blockchain' handles 'NFT Issuance' and 'NFT Listing'. The 'Database' stores 'Content Registration' and 'Content Retrieval' data. Data flows from 'User 1-O1' and 'User 1-O2' into the 'Blockchain'.

The diagram also shows the flow of data between these layers, with arrows indicating the direction of data transfer. For example, data flows from the 'Marketplace System' to the 'Storage System', and from the 'Storage System' to the 'Media Player'.

[図2]



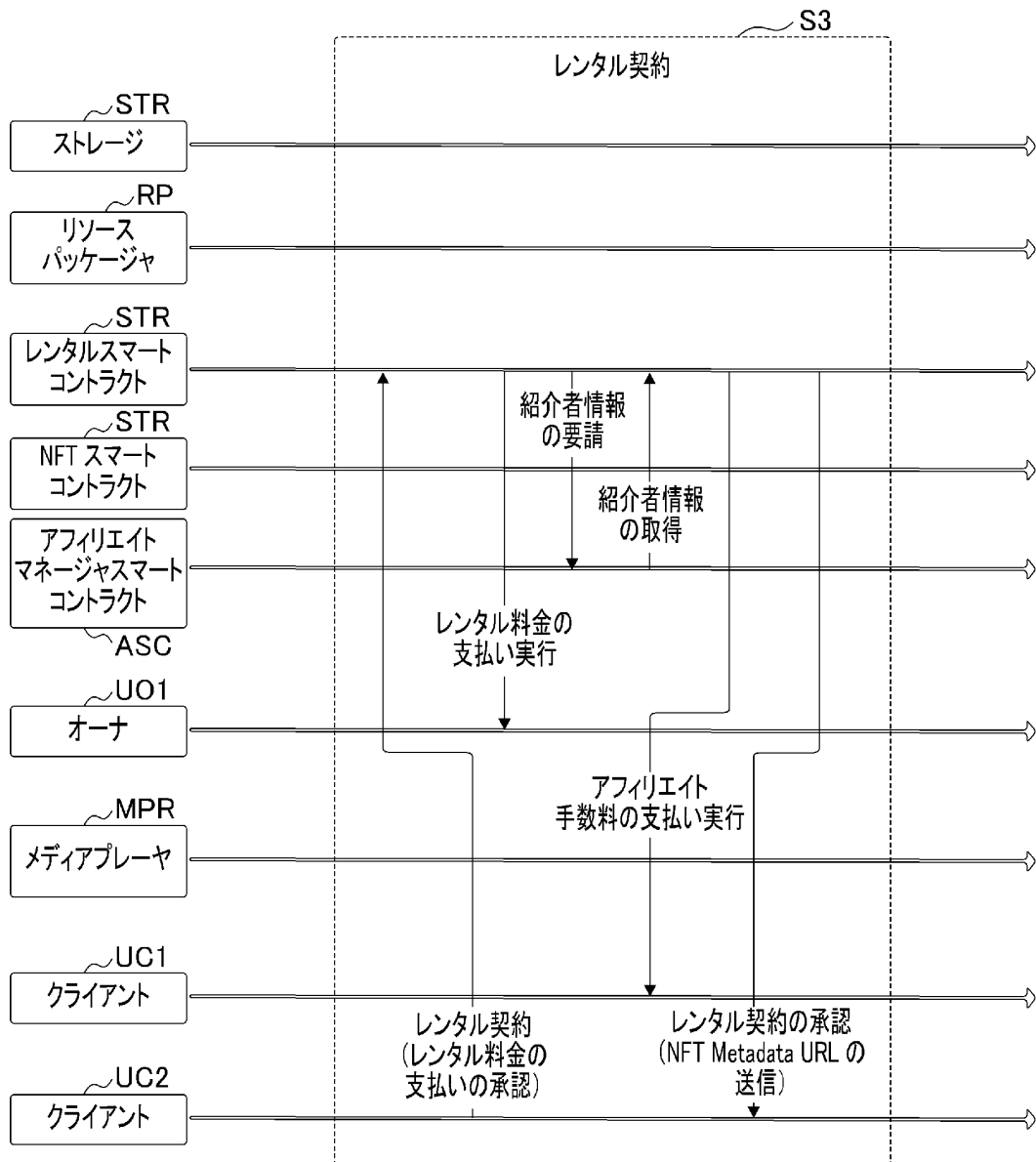
[図3]



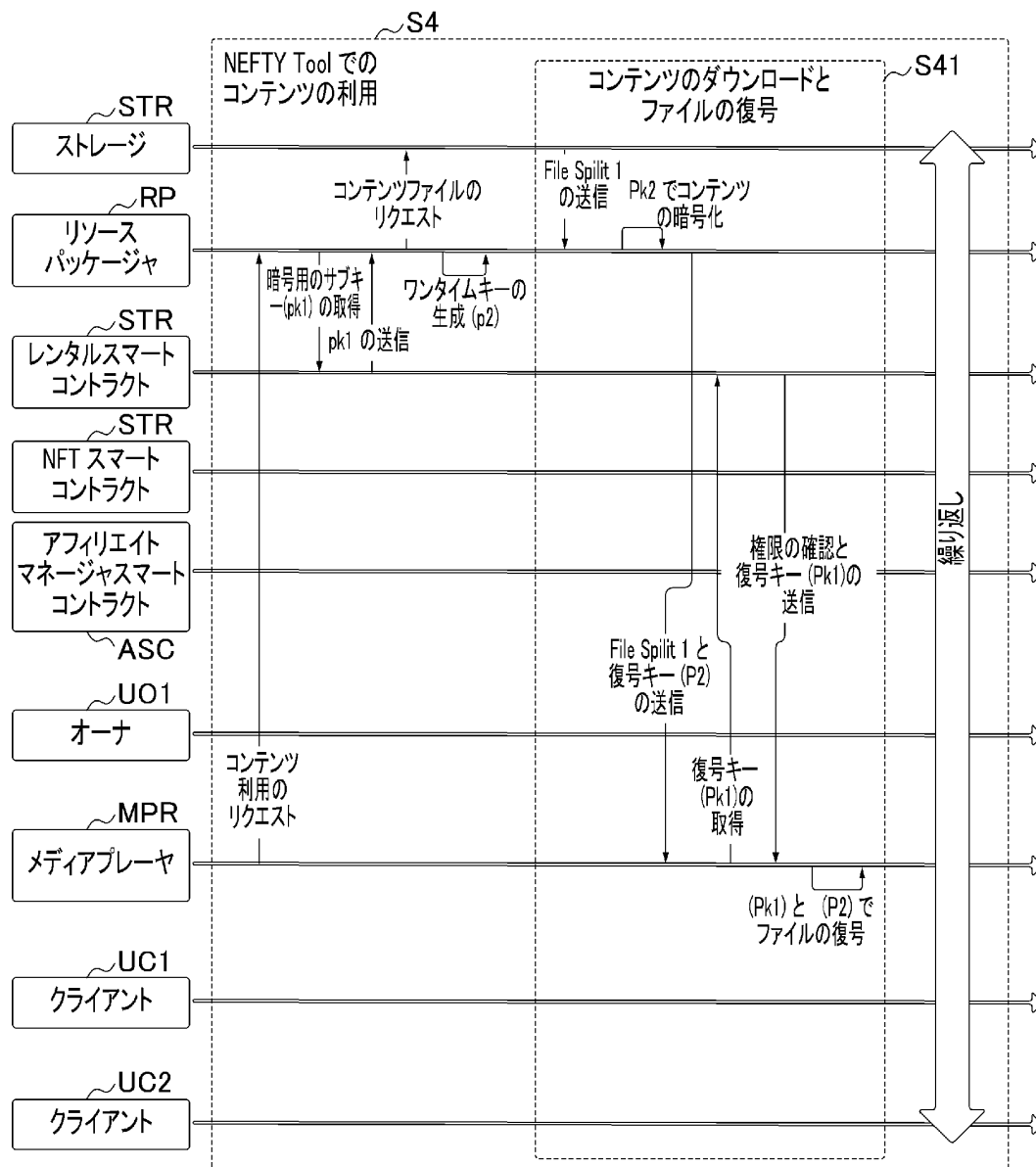
[図4]



[図5]

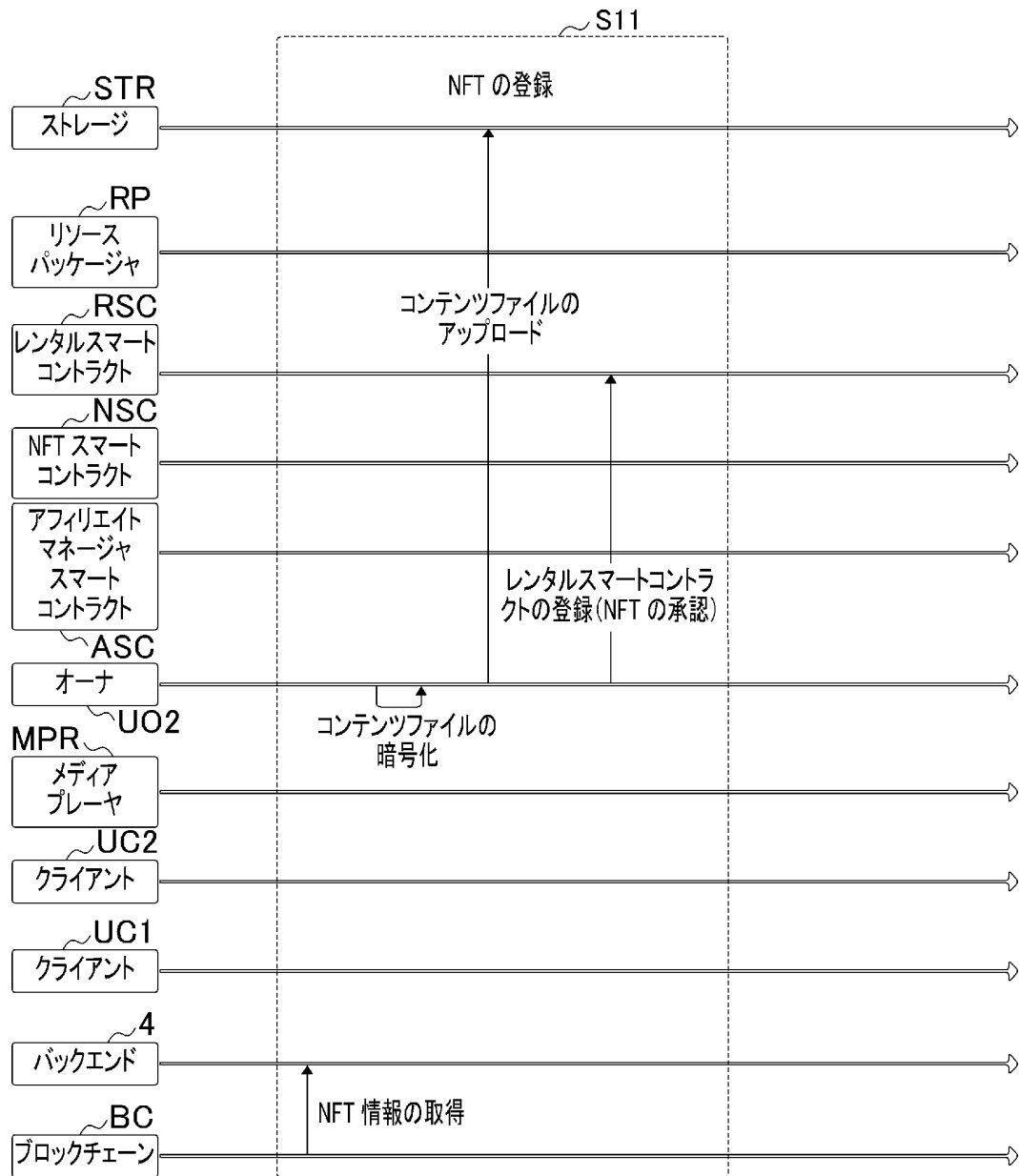


[図6]



The diagram illustrates a system architecture and its interactions. The components are organized into two main sections: a top section with components STR, RP, RSC, NSC, ASC, MP, UC, and BC, and a bottom section with components S11, S12, S13, and S14. The components are connected by a series of arrows indicating data flow and control signals. The top section components are further grouped into sub-sections: STR, RP, RSC, NSC, ASC, MP, UC, and BC. The bottom section components are grouped into sub-sections: S11, S12, S13, and S14. The diagram shows a complex flow of information between these components, including data registration, rental agreement, and download processes.

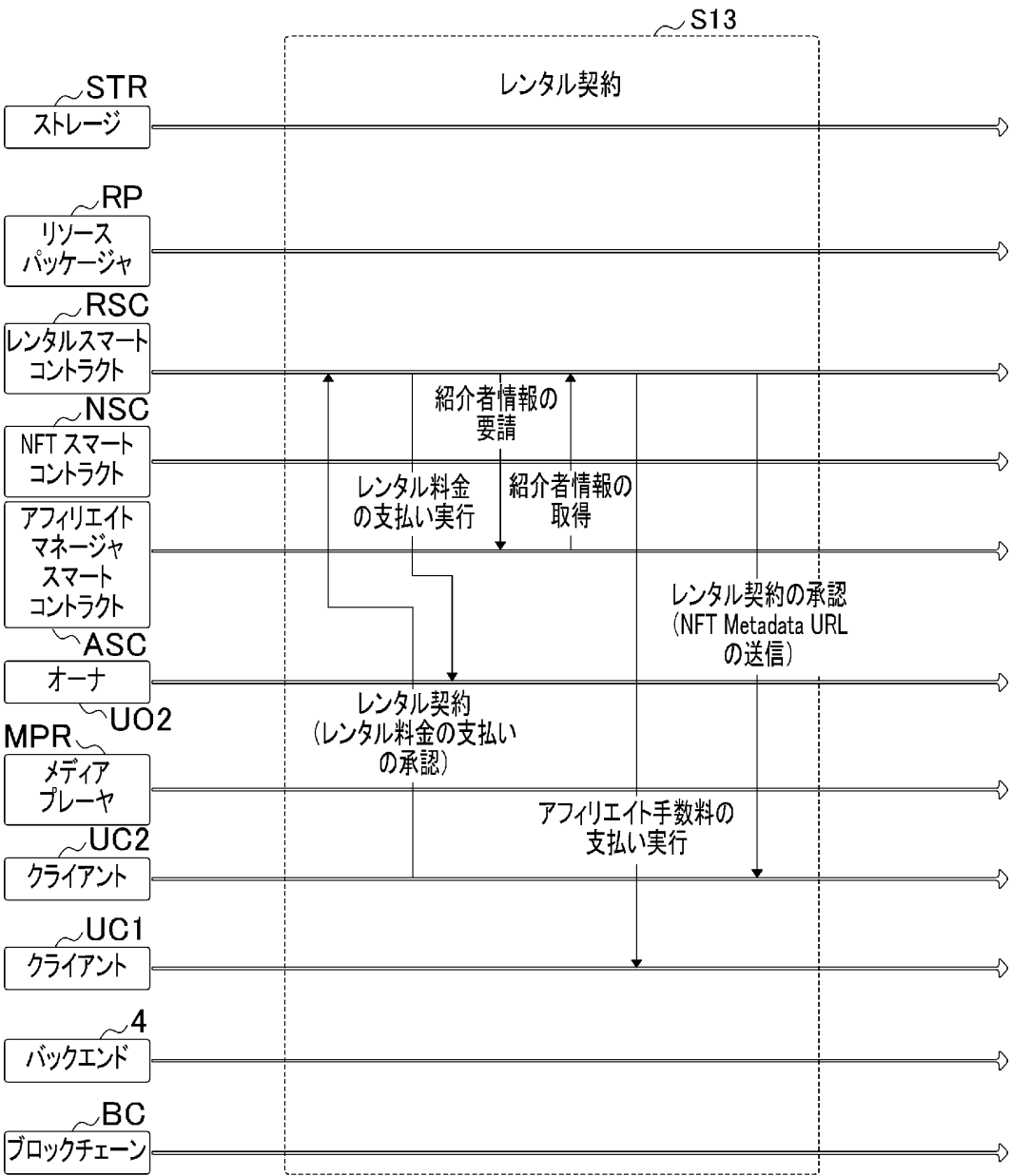
[図8]



[図9]



[図10]



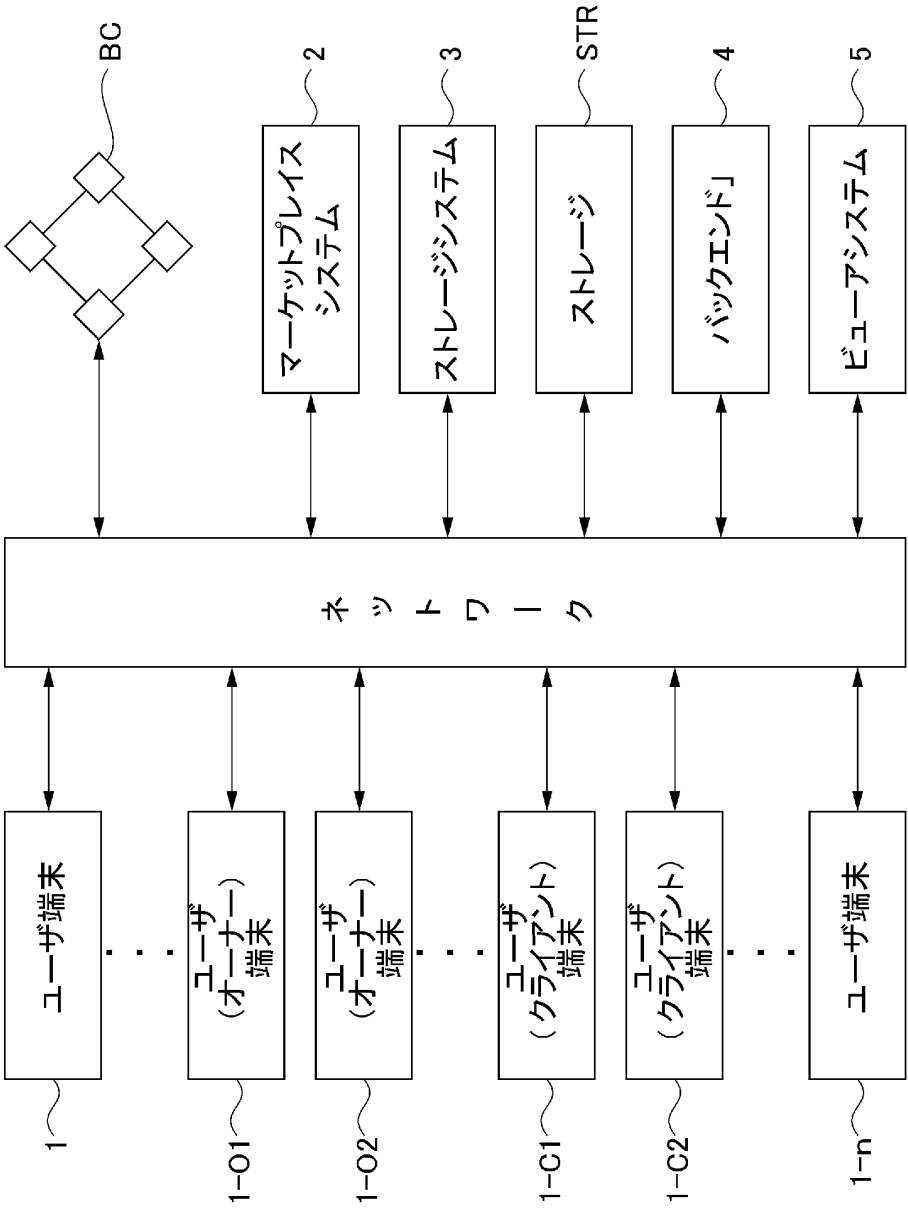
The diagram illustrates the NEFTY system architecture and its operational flow. It features a vertical stack of components on the left, each with a label and a corresponding horizontal line representing its interface. The components are: STR (Storage), RP (Resource Package), RSC (Rental Smart Contract), NSC (NFT Smart Contract), ASC (Affiliate Manager Smart Contract), MPR (Media Player), UC2 (Client), UC1 (Client), 4 (Backend), and BC (Blockchain). The flow is divided into two main sections: S14 (NEFTY Toolでのコンテンツの利用) and S141 (コンテンツのダウンロードとファイルの復号). In S14, the process involves content file requests, subkey acquisition, and key generation. In S141, it covers file splitting, encryption, and decryption. A large vertical arrow on the right indicates a return path or feedback loop.

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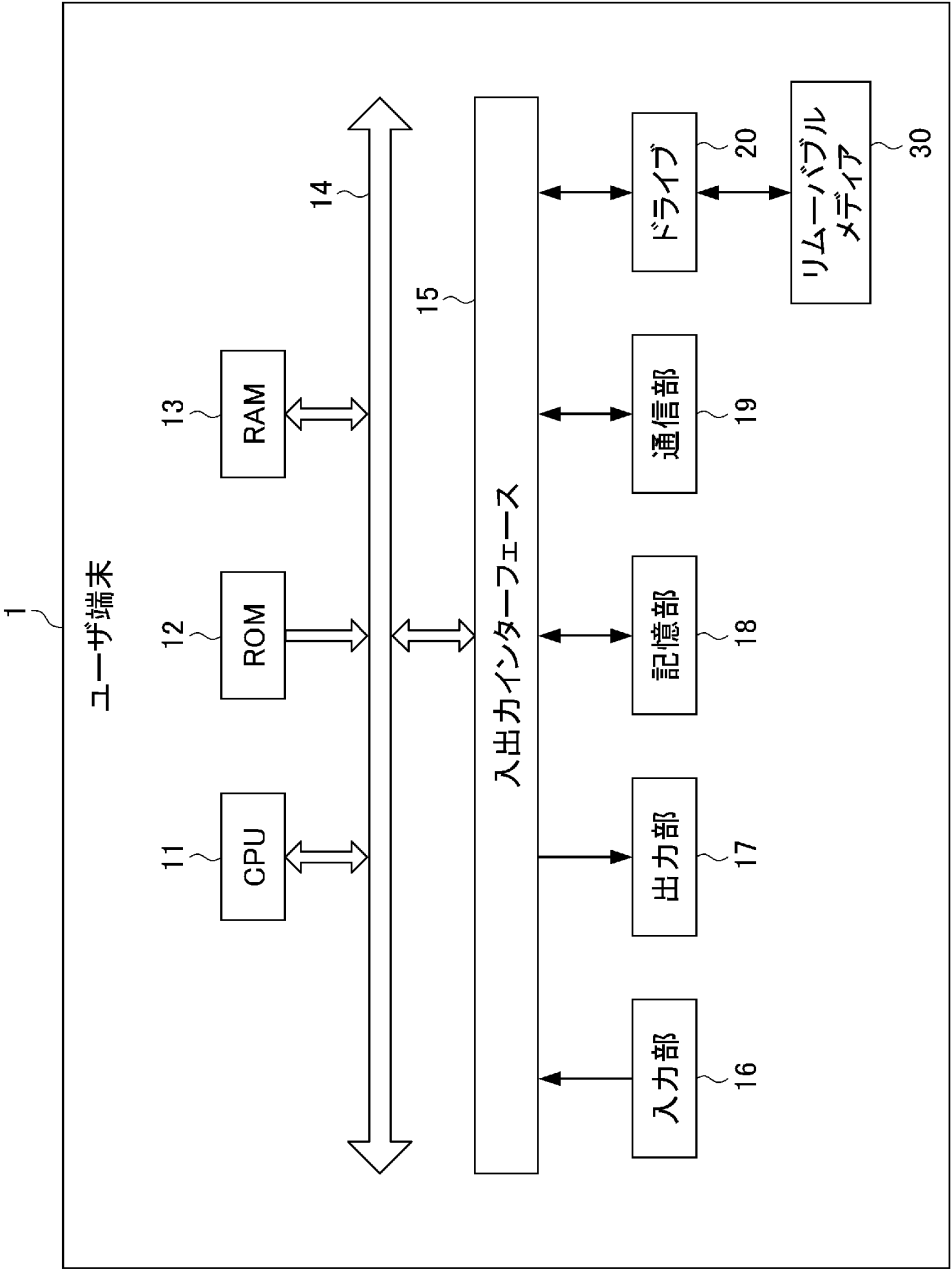
sequenceDiagram
    participant STR as STR  
ストレージ
    participant RP as RP  
リソース  
パッケージ
    participant RSC as RSC  
レンタルスマート  
コントラクト
    participant NSC as NSC  
NFT スマート  
コントラクト
    participant ASC as ASC  
アフィリエイト  
マネージャ  
スマート  
コントラクト
    participant MPR as MPR  
メディア  
プレーヤ
    participant UC2 as UC2  
クライアント
    participant UC1 as UC1  
クライアント
    participant 4 as 4  
バックエンド
    participant BC as BC  
ブロックチェーン

    Note over STR, RP, RSC, NSC, ASC, MPR, UC2, UC1, 4, BC: S14 NEFTY Tool での  
コンテンツの利用
    RP->>STR: コンテンツファイルの  
リクエスト
    RP->>RSC: 暗号用のサブ  
キー(pk1)の  
取得
    RSC->>RP: pk1の送信
    RP->>RP: ワンタイムキー  
の生成(p2)
    Note over STR, RP, RSC, NSC, ASC, MPR, UC2, UC1, 4, BC: S141 コンテンツのダウンロードと  
ファイルの復号
    STR->>RP: File Split 1  
の送信
    RP->>RP: Pk2でコンテンツの  
暗号化
    RP->>NSC: 権限の確認と  
復号キー(Pk1)  
の送信
    NSC->>RP: File Split 1と  
復号キー  
(P2)の送信
    RP->>MPR: 復号キー  
(Pk1)の取得
    MPR->>RP: (Pk1)と(P2)で  
ファイルの復号
    RP-->>STR: 戻り返し
  
```

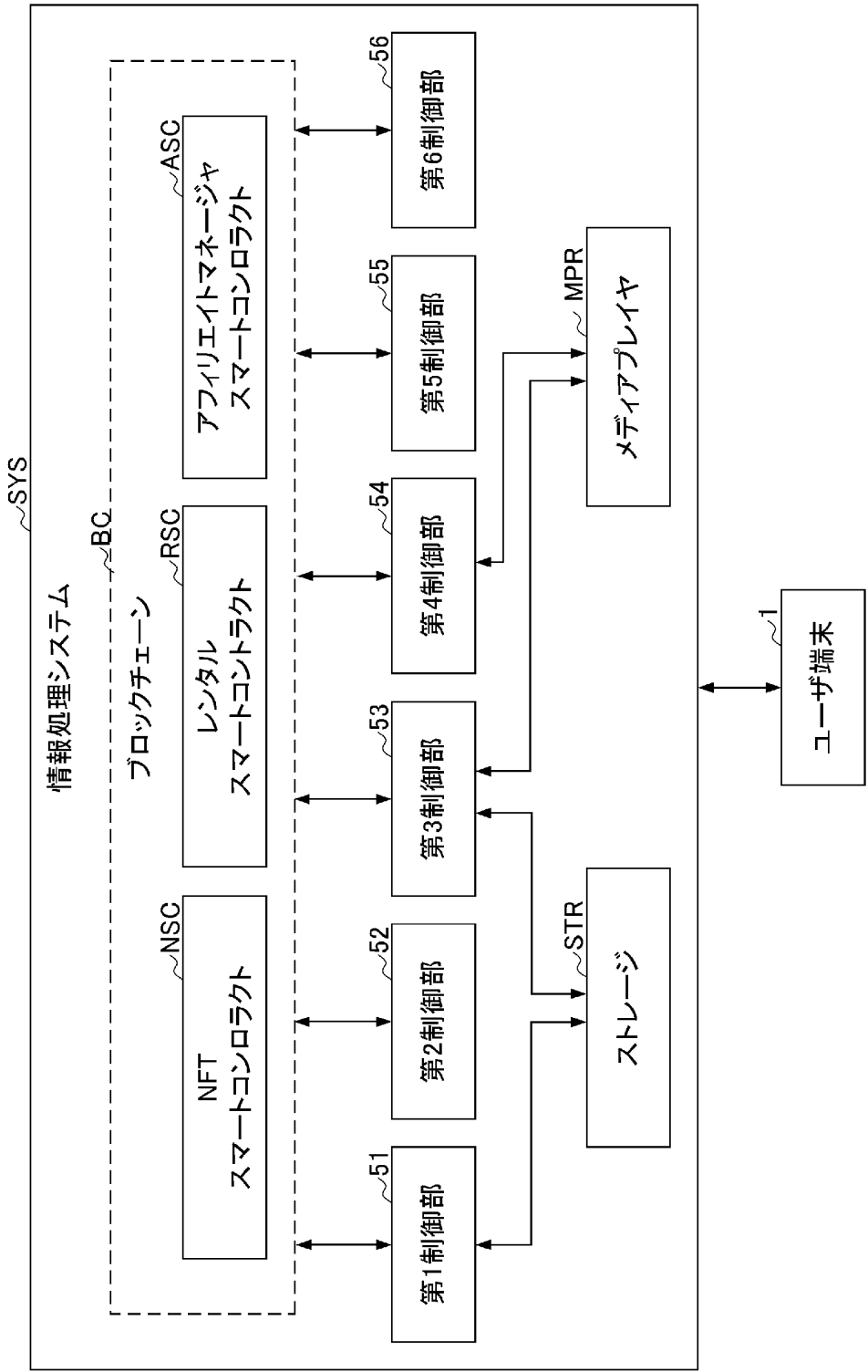
【図12】



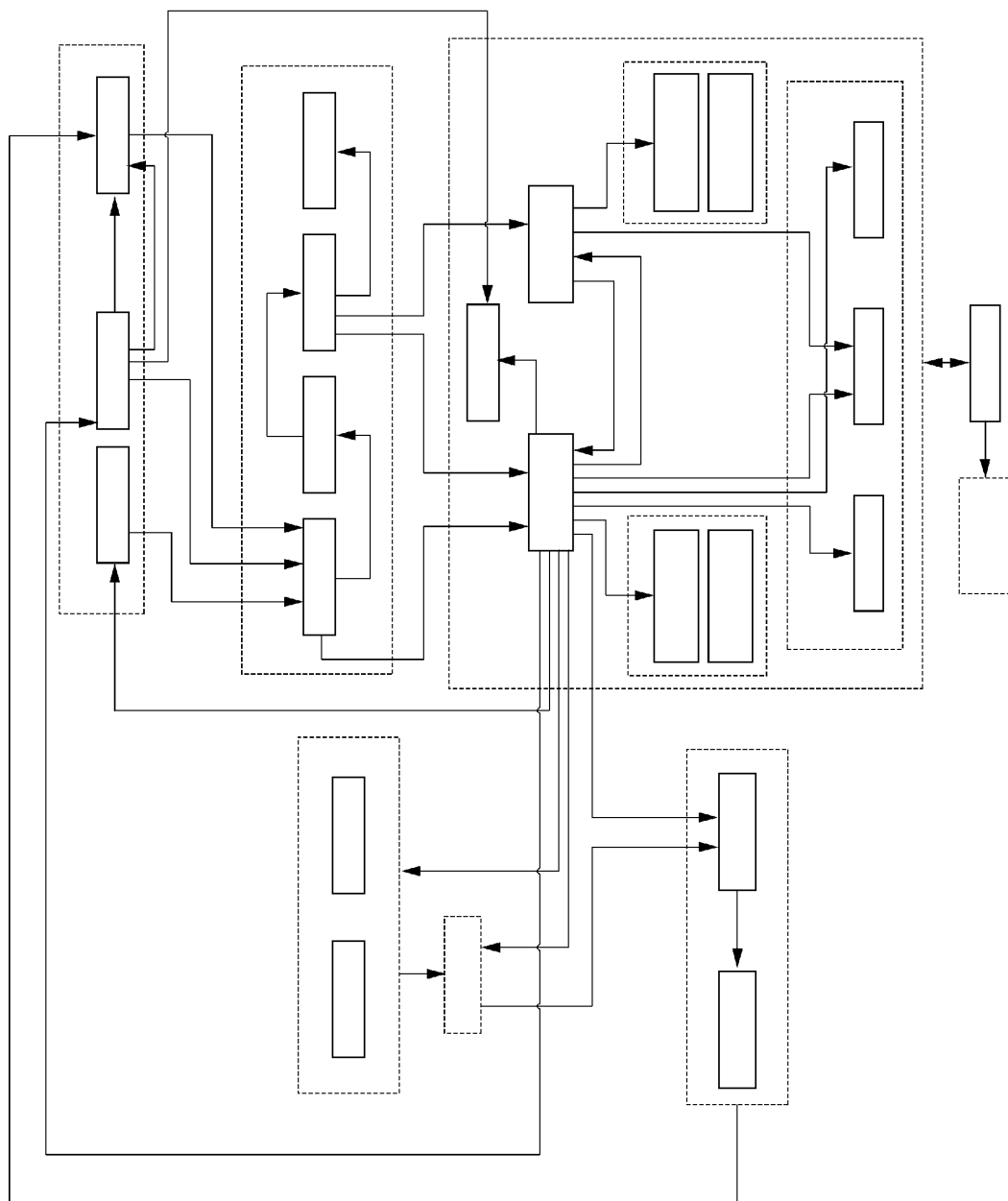
[図13]



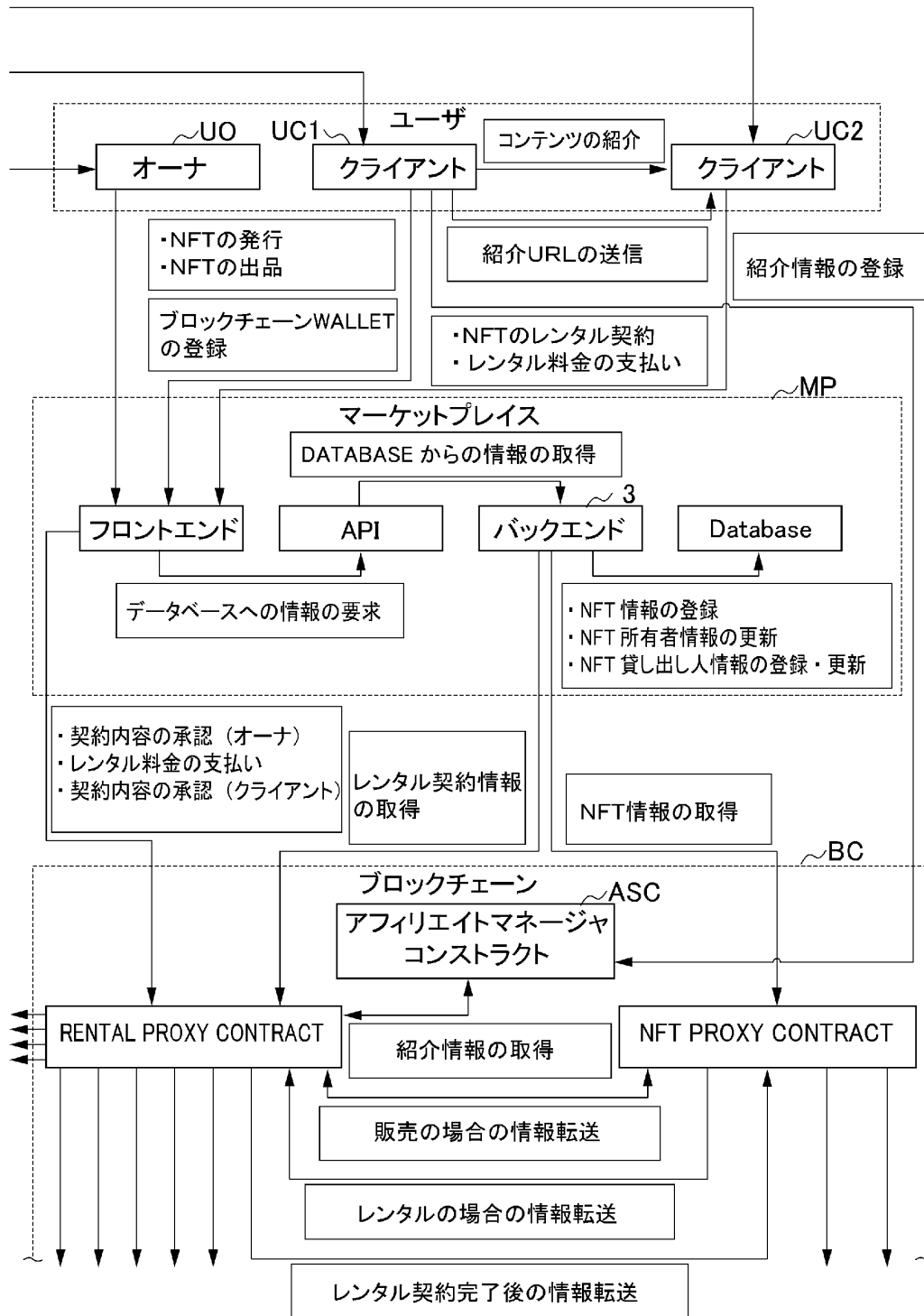
[図14]



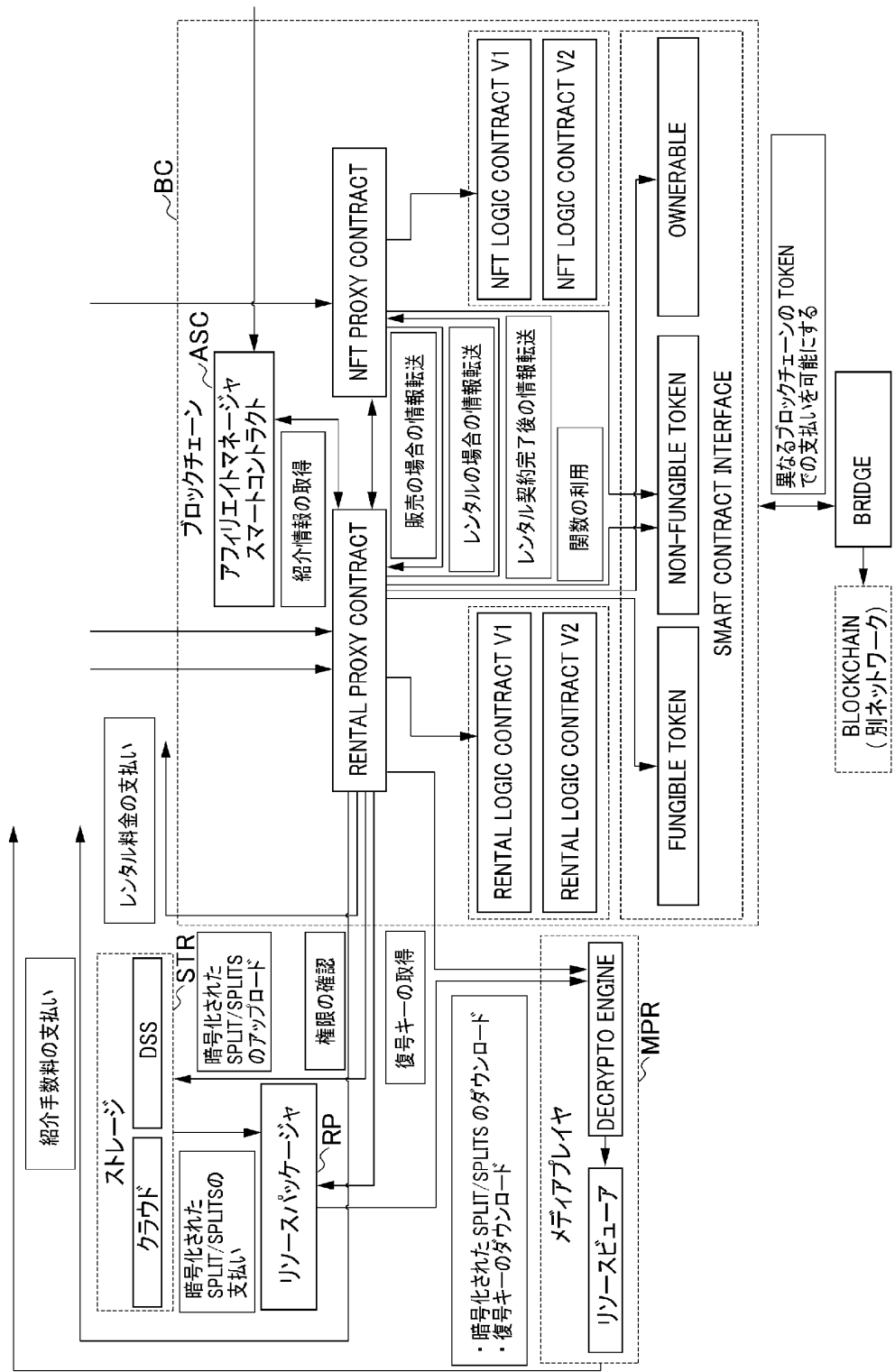
[図15]



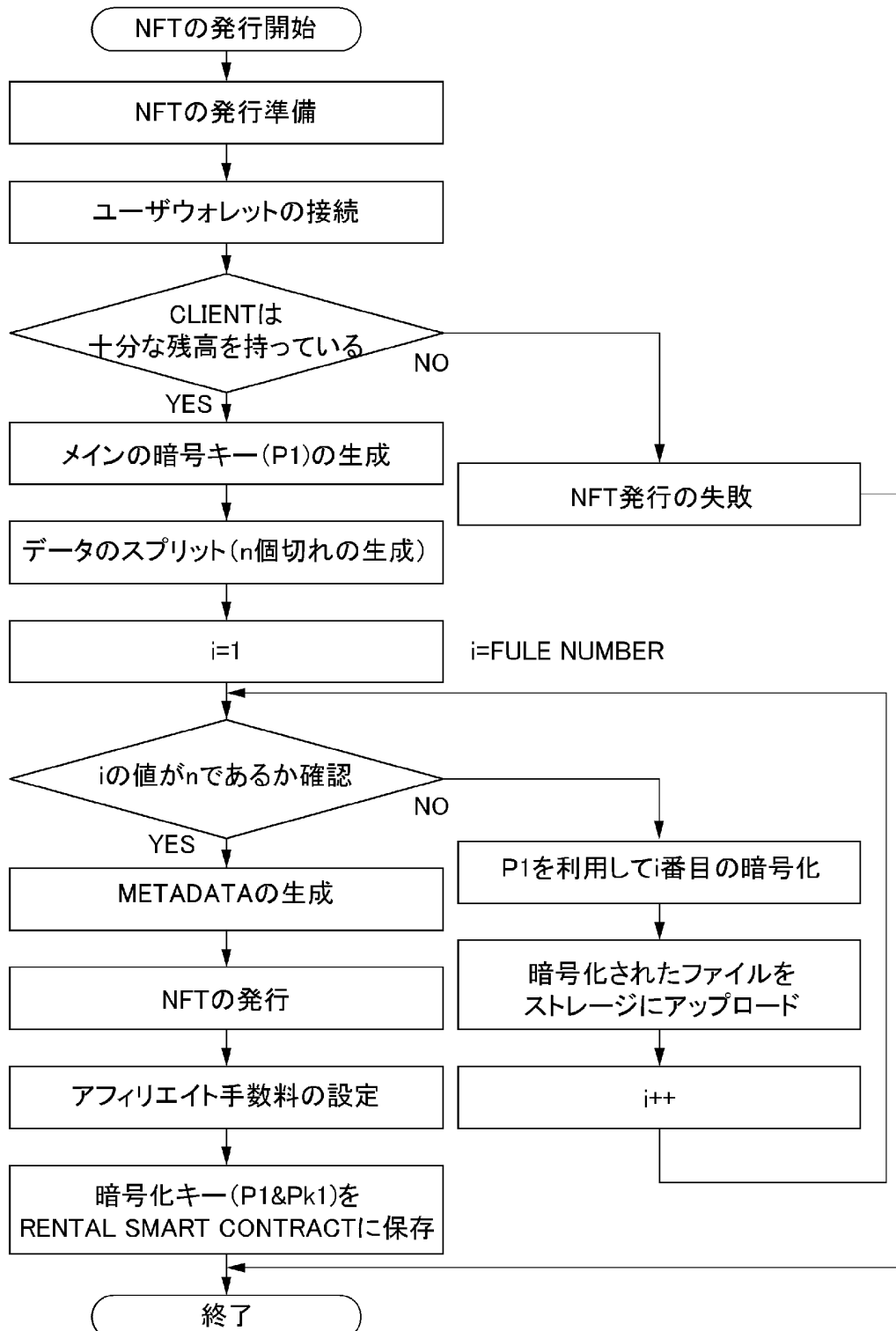
[図16]



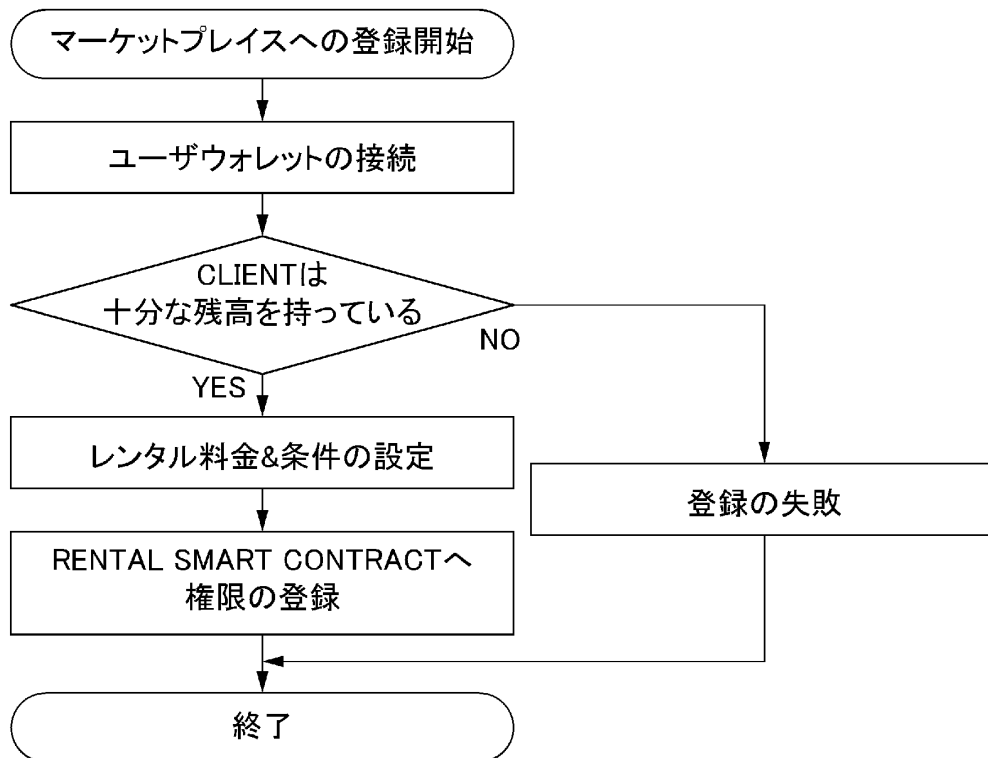
[図17]



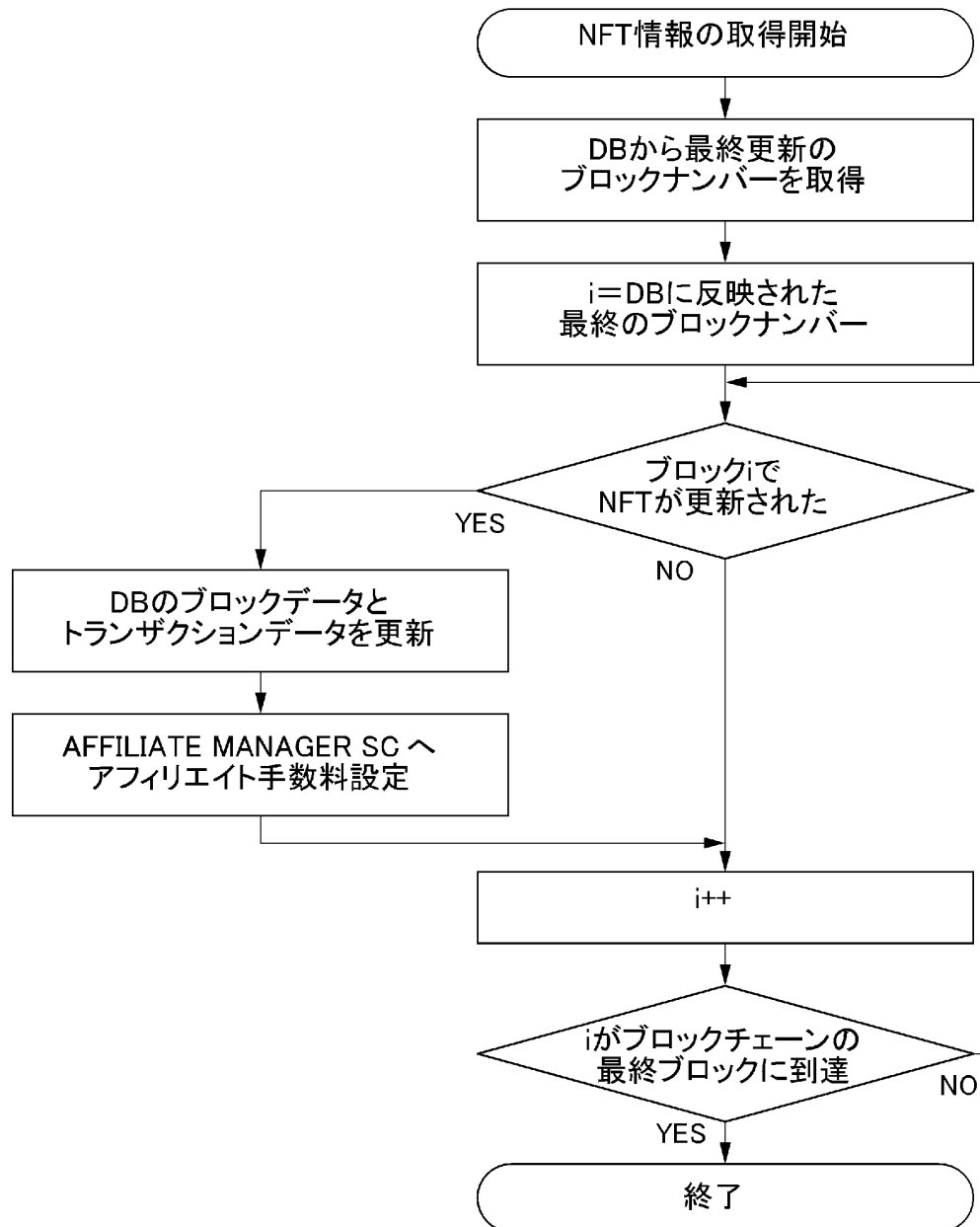
[図18]



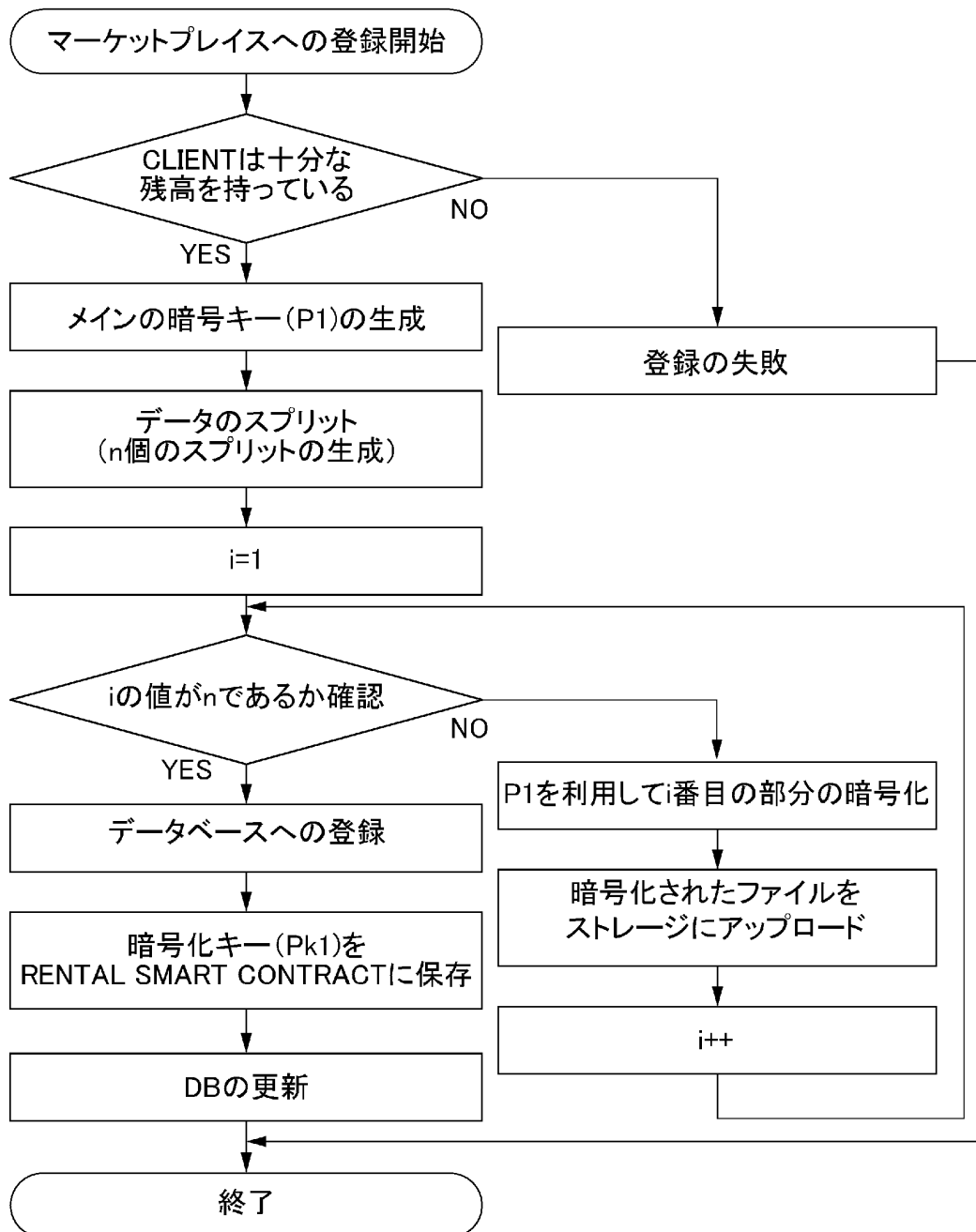
[図19]



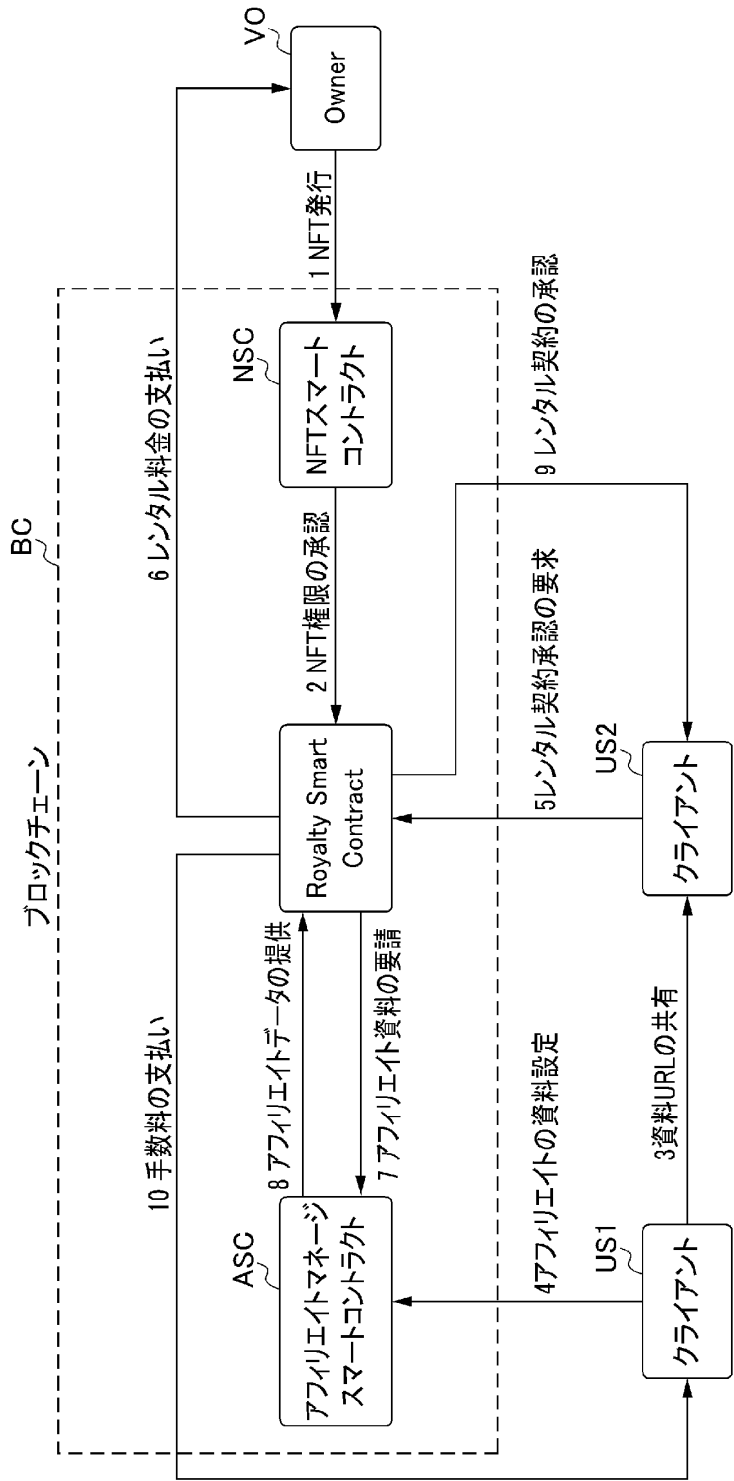
[図20]



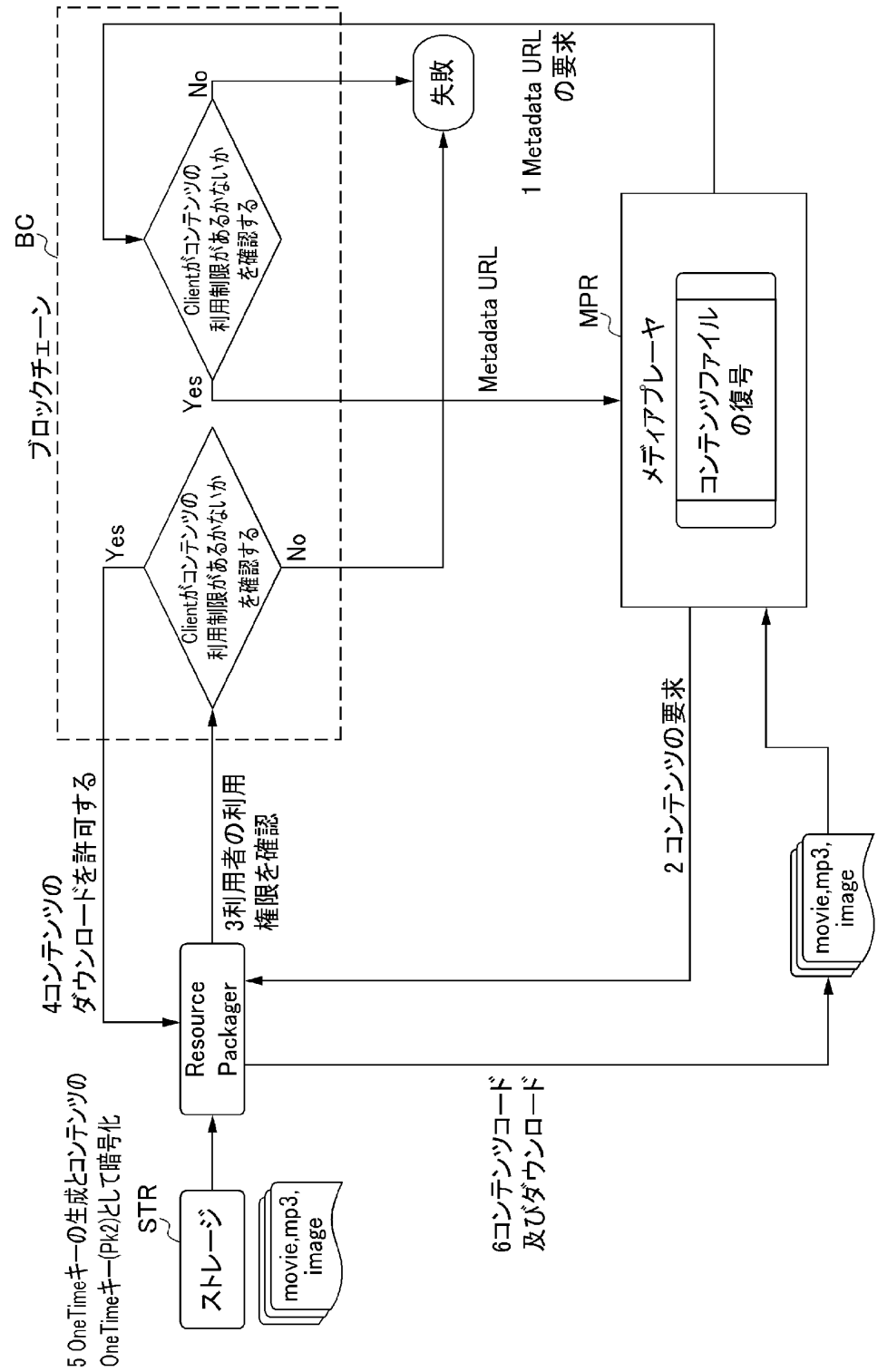
[図21]



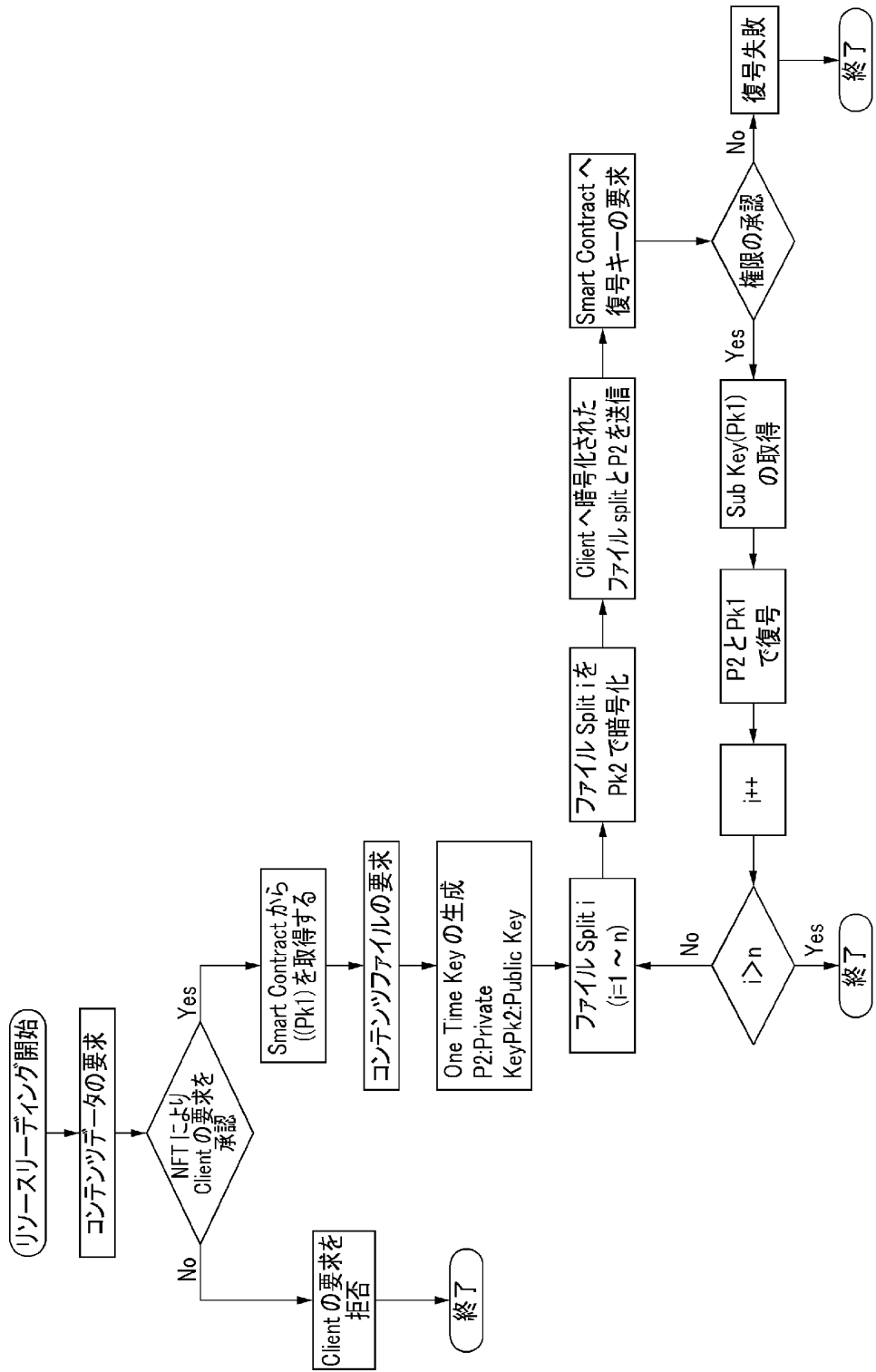
[図22]



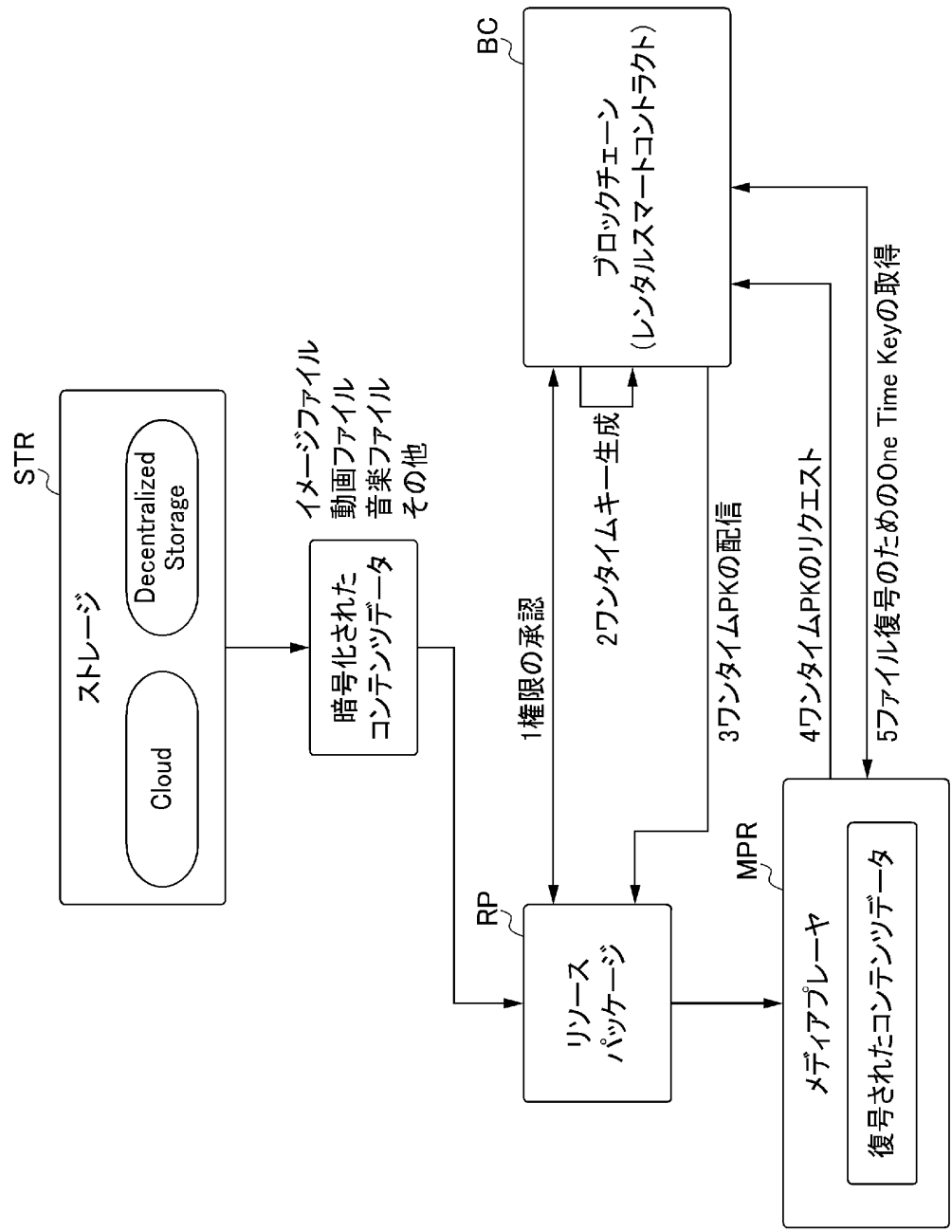
[図23]



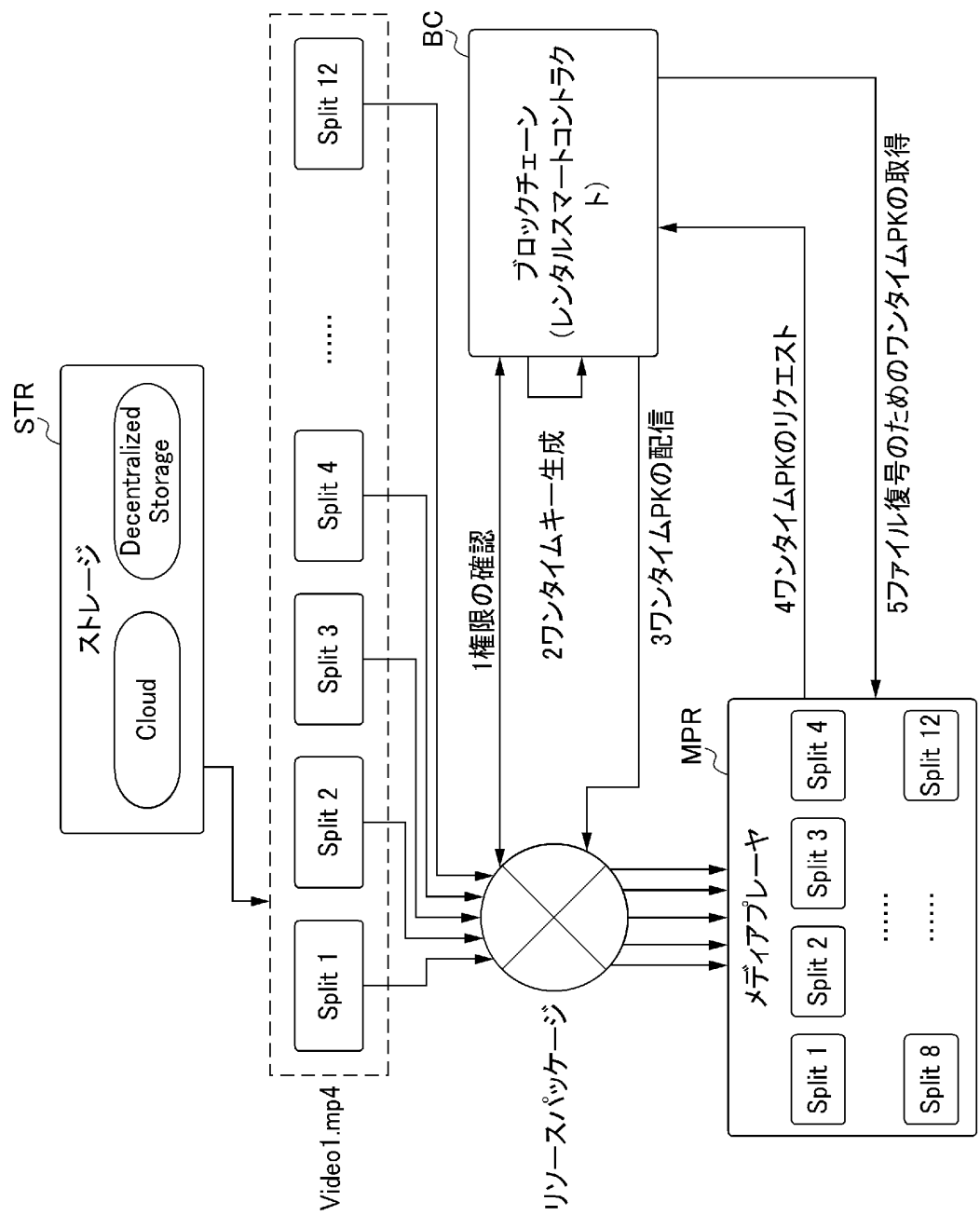
[図24]



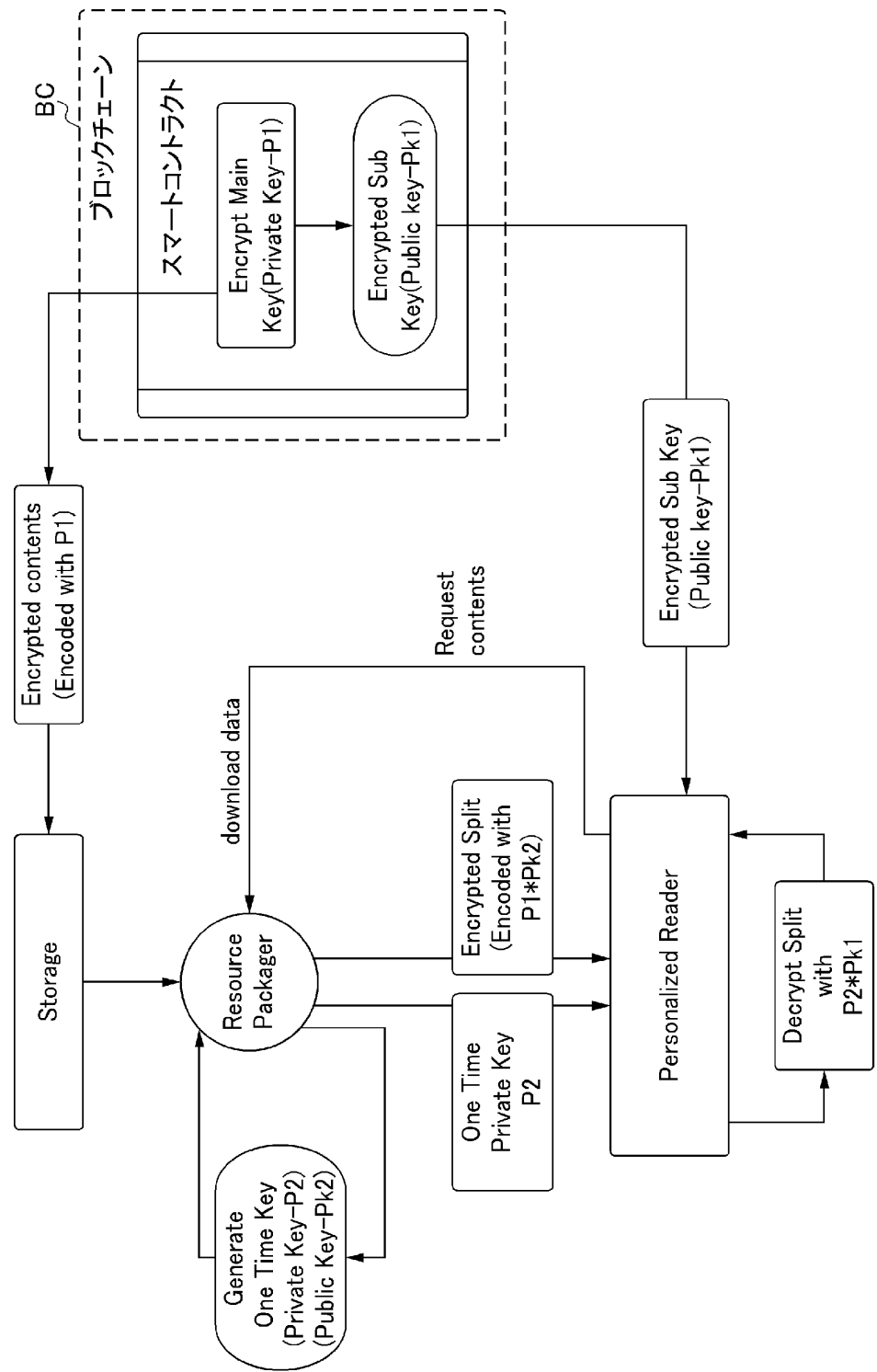
[図25]



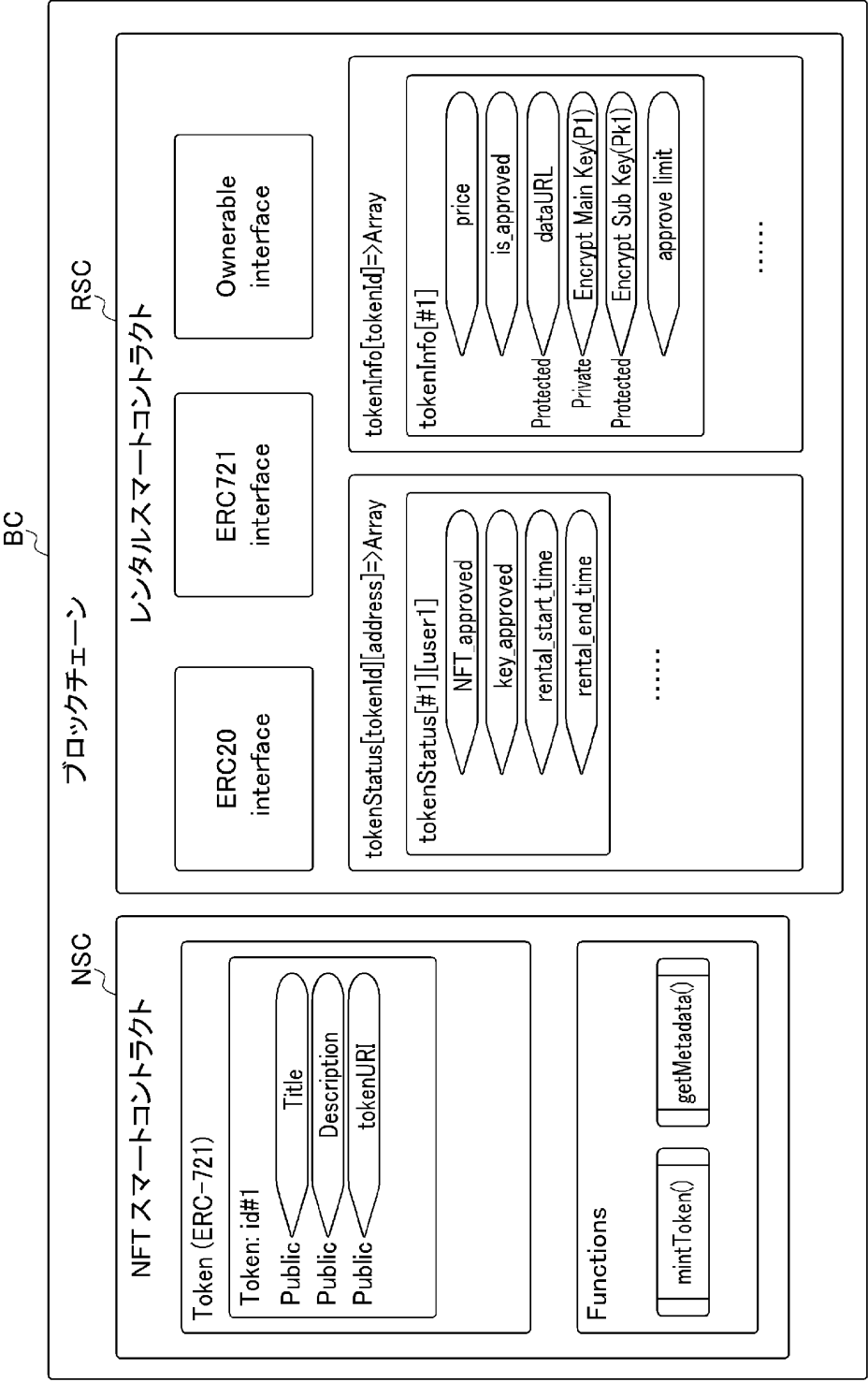
[図26]



[図27]



[図28]



[図29]

