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| --- | --- | --- | --- |
| *Place of Implementation* | *decision rule* | *Rule Description* | *Type* |
| C-Manage Price Registration Document > Check bidding information | Generate Price Registration Document - PRD | **After the PRD analyst completes form1:**  1. Check the Smart Contract 1 (E-Bidding) of the awarded suppliers;  2. Create an PRD per supplier participating in the E-Bidding, containing all items suitable for sale and their information;  3. Generate a “Make PRD available for consumption” task for each PRD in the PRD Analyst work queue | *Off-chain* |
| Smart Contract 2 (Price Registration Minutes - ARP) | Write PRD on blockchain | **After creating the PRDs by supplier:**  Record each of the PRDs as a Smart Contract 2 (Price Registration Document – PRD); | *On-chain* |
| C-Manage Price Registration Document > Make PRD available for consumption | Make PRD available for consumption | **After the analyst enters the ARP publication data into the DOE:**  1. Record in the specific ARP Smart Contract the publication number and data in the DOE; | *On-chain* |
| Smart Contract 2 (Price Registration Document - PRD) | Manage from PRD | **After recording the PRD publication number and data in the DOE:**  1. Start the start of the ARP, with a forecast of 365 after publication in the DOE  2. After 365 days, ending the ARP. | *On-chain* |
| Manage material purchase > Select supplier | hire supplier | **After the government agency completes the material request form 4:**  1. Check in Smart Contract 1 the supplier with the lowest price for the requested item;  2. Confirm price will be constant for accurate price by selected supplier in ARP (current price may have changed in ARP).  3. If the **price is the same or lower** > Select supplier; if **price goes higher** > Perform steps 1 and 2 again. | *Off-chain* |
| Manage Material Purchase > Check Material Balance | Calculate material balance | **After supplier selection:**  1. Check the specific ARP Smart contract if there is a balance of the requested items;  2. Check the agency's purchase plan for the requested items;  3. If **1 AND 2 are true** > Create supply authorization; If 1 OR 2 are false > Cancel supply authorization and generate the message requesting informing the number of items in. | *Off-chain* |
| Smart Contract 3 (Supply Authorization Draft - MAF) | Write MAF on blockchain | **After checking ARP balance:**  1. Write MAF on blockchain as a specific smart contract;  2. Associate the MAF Smart Contract with the corresponding ARP Smart Contract; | *On-chain* |
| Manage material purchase > Send AF to supplier by E-mail | Send MAF to supplier | **After generating the AF Smart contract:**  1. Check the e-mail of the supplier's representative in the corresponding PRD;  2. Send an E-mail to the representative requesting the supply of the material. | *Off-chain* |
| Smart Contract 3 (Supply Authorization Draft - MAF) | Write MAF receive data | **After sending the E-mail to the representative:**  1. Wait for confirmation of receipt of the E-mail;  2. Record request receipt data;  3. Start attendance timer. | *On-chain* |
| Smart Contract 3 (Supply Authorization Draft - MAF) | penalize supplier | **After the service time count starts:**  1. If **material requested for water** : After 7 days without material receipt record > Generate notification in supplier history (S Contract 4) > send alert message to supplier;  2. If it is before **materials** : After 20 days without material receipt record > Generate notification in supplier history (Smart Contract 4) > alert message to supplier.  3. If 30 days have passed without a record of material receipt > Generate notification in supplier history (Smart Contract 4) > cancel MAF. | *On-chain and Off-chain (notifications)* |
| Smart Contract 3 (Supply Authorization Draft - MAF) | Save order dispatch | **After the supplier fills out form 5:**  Record dispatch data and material information dispatched in the corresponding MAF Smart Contract 3. | *On-chain* |
| Smart Contract 3 (Supply Authorization Draft - MAF) | Record order receipt | **After the buyer fills out form 6:**  1. Record receipt data for the requested material in the corresponding MAF Smart contract;  2. End order fulfillment time count. | *On-chain* |
| Manage material purchase > approve delivered material | approve delivery | **After completing form 7:**  1. Check given by buyer:  if "Approve material" > approves 100% of the shipped material > registers information in the MAF Smart contract > notifies the supplier by E-mail > places the request in the payment queue;  if "Disapproval material" > rejects the order > register information in the MAF Smart contract > notify the supplier by e-mail > close the request;  If "Approve the contract" > opens the quantity and mark fields in the form for the buyer and values > registers the change in the MAF Smart contract queue > informs the payment provider by E-mail >  2. Update the balance of the items purchased in the Smart Contract of the associated PRD.  3. Update the balance of items purchased in the agency's purchase plan. | *On-chain and Off-chain* |
| Manage material purchase > Confirm payment to supplier | confirm payment | **After the buyer confirms the payment from MAF:**  1. Record in the MAF Smart Contract the date of payment to the supplier and the status of the order (Paid)  2. Delete MAF from Payment Queue. | *On-chain* |