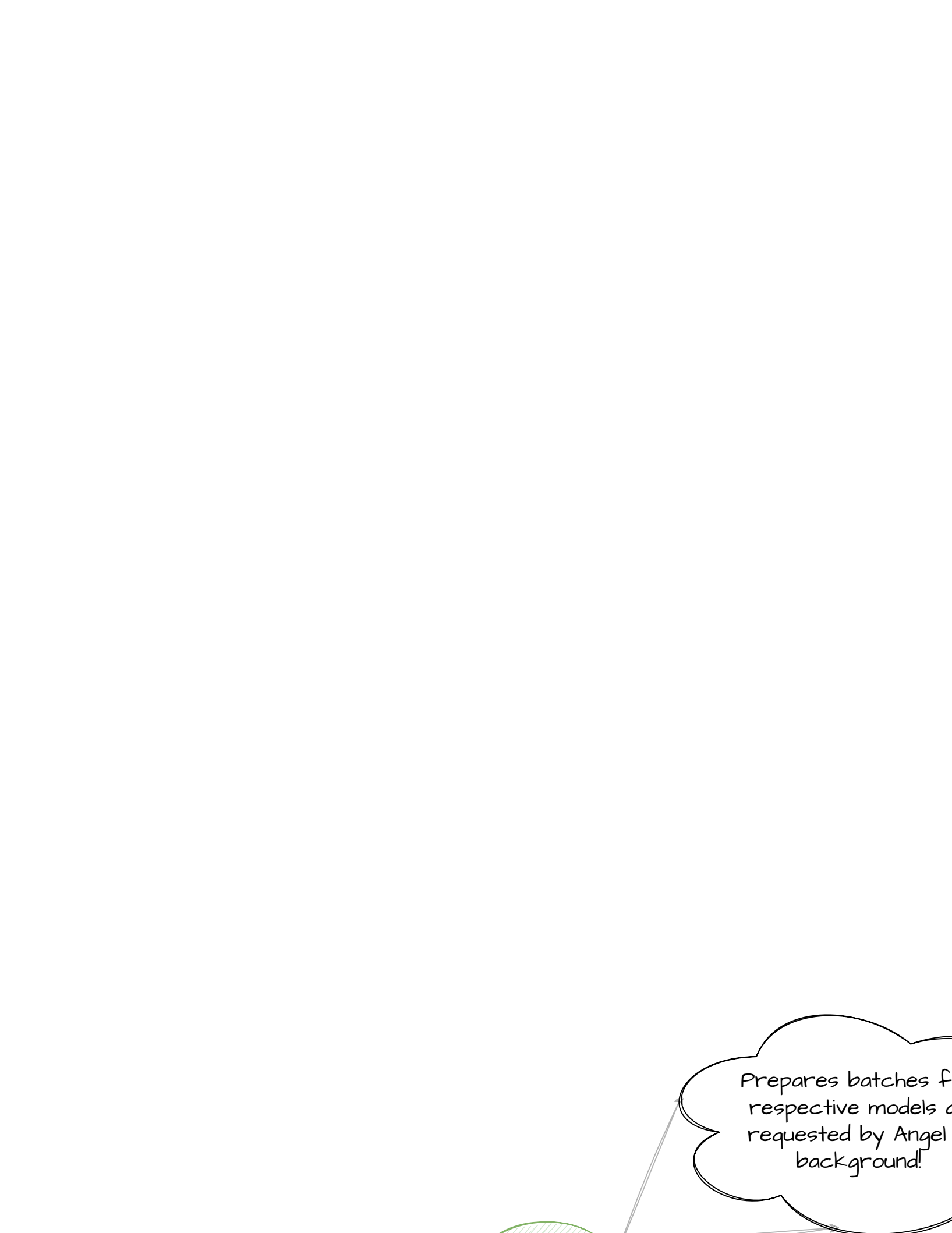

Prepares batches f
respective models a
requested by Angel
background!

or
as
in

wner

Angel

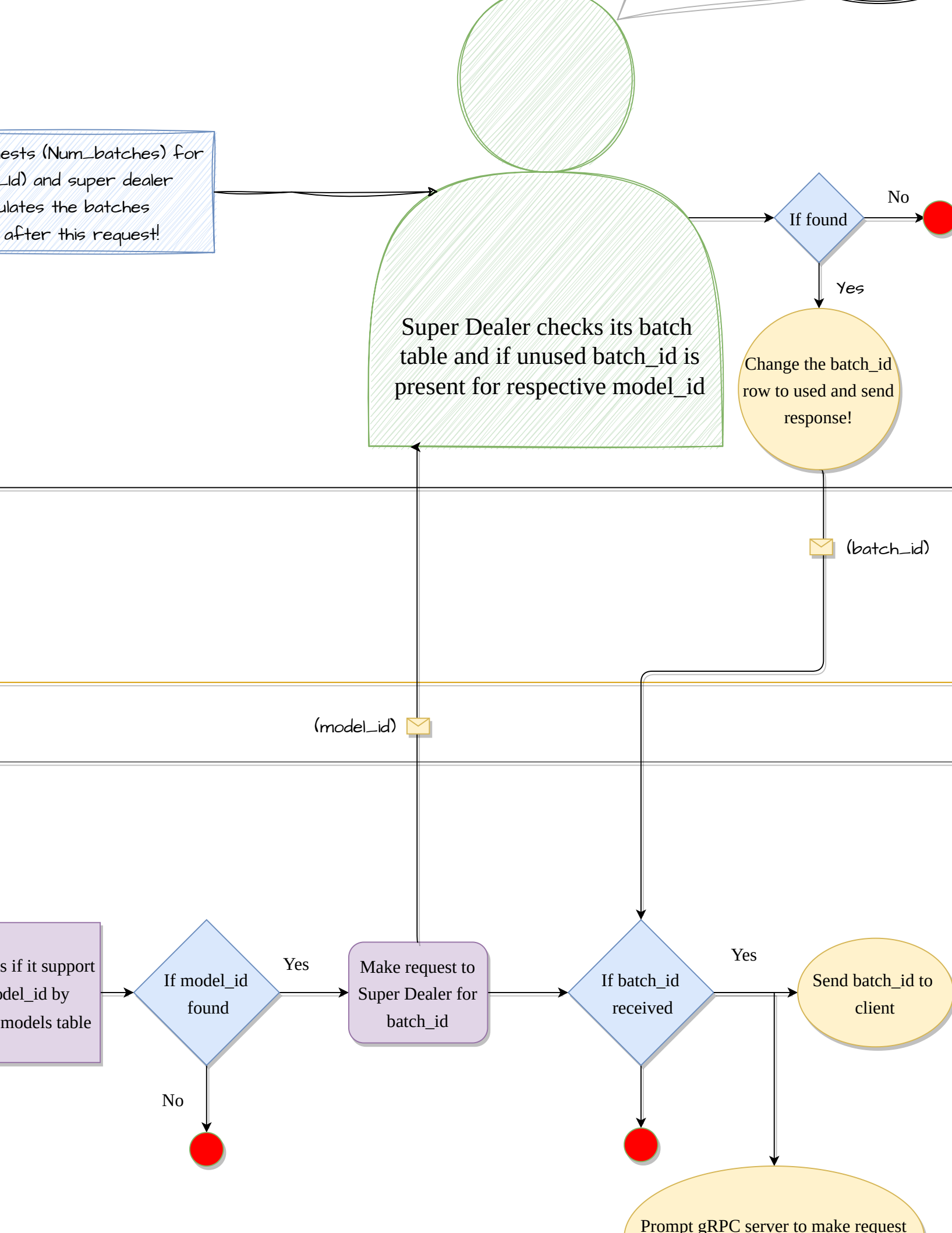
Angel requ
(Model
popu
table

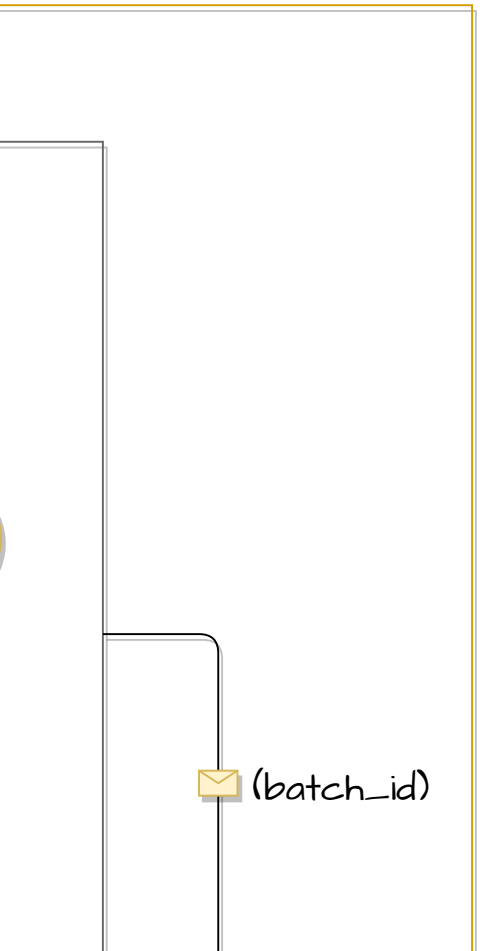
MO starts REST Server

Model Owner's REST Server

Model_inference GET Handler

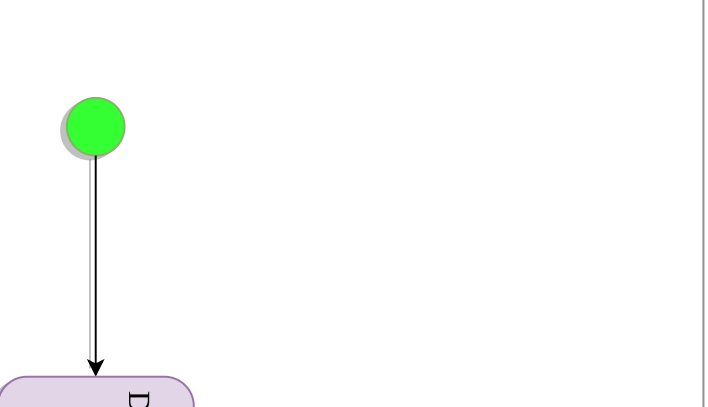
Model Owner Look
inference for mo
checking the MO's

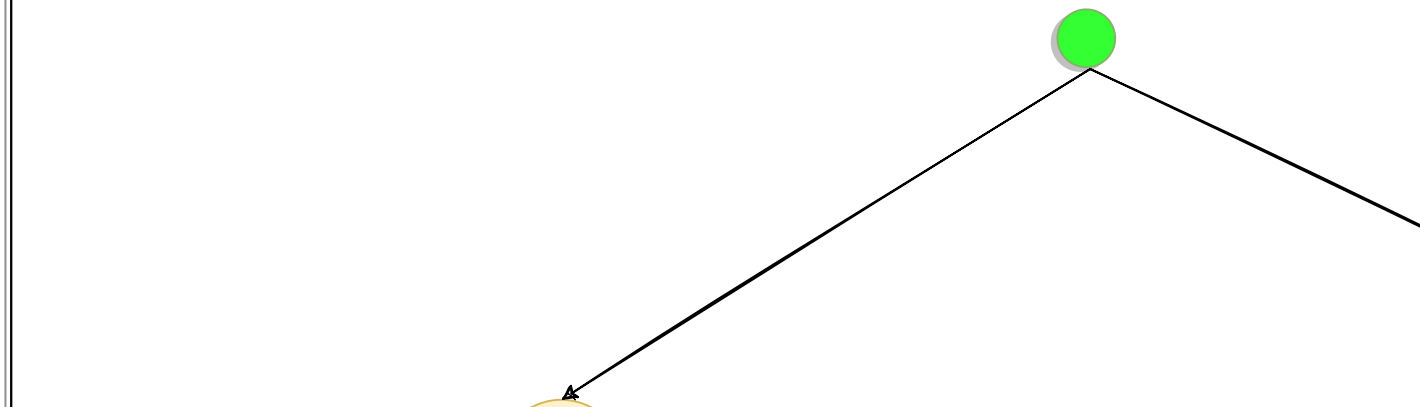

ests (Num_batches) for
_Id) and super dealer
ulates the batches
after this request!
Super Dealer checks its batch table and if unused batch_id is present for respective model_id
If found
No
Yes
Change the batch_id row to used and send response!
(batch_id)
(model_id)
s if it support
odel_id by
models table
If model_id found
Yes
No
Make request to Super Dealer for batch_id
If batch_id received
Yes
Send batch_id to client
Prompt gRPC server to make request

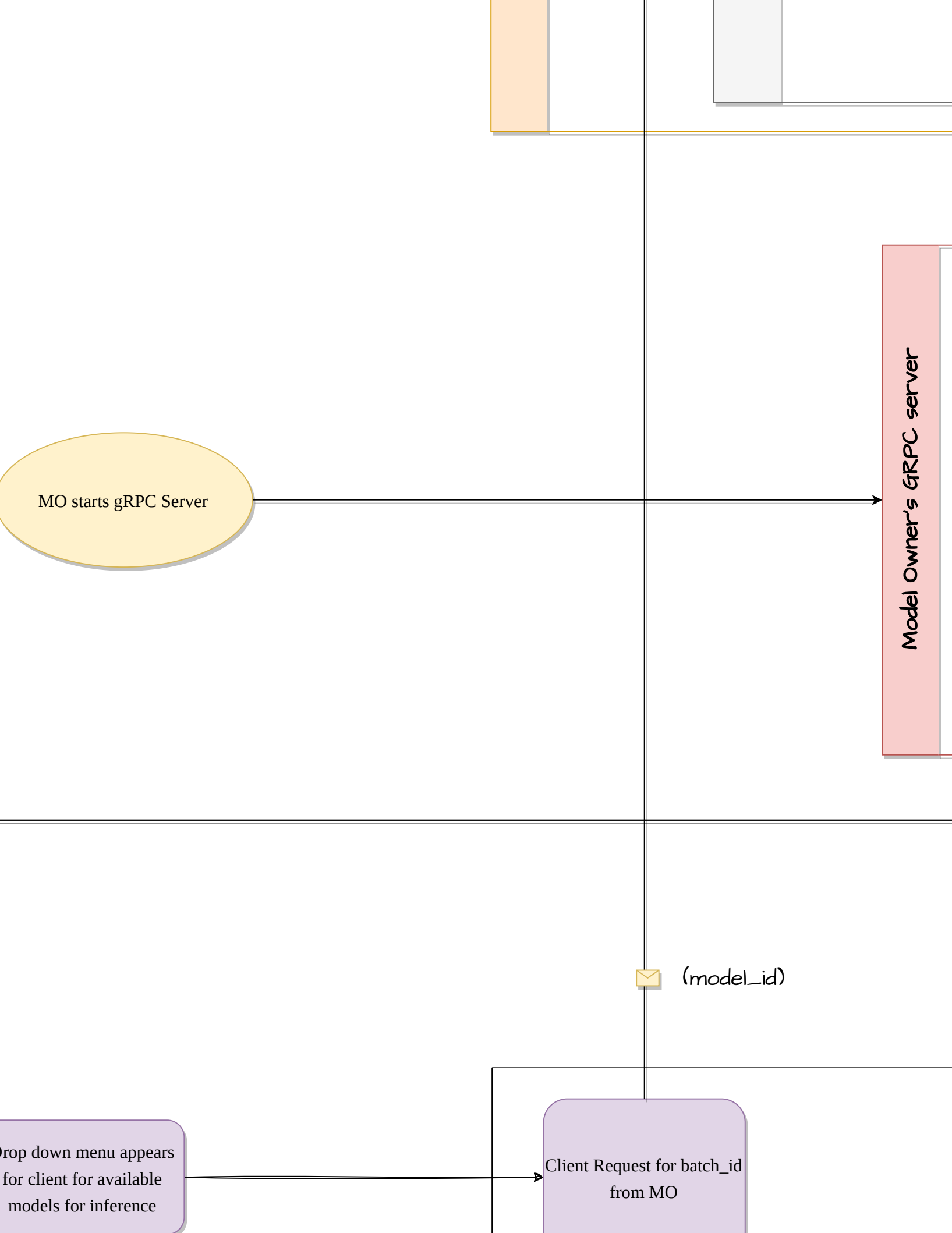

(batch_id)

Client

Model Ov





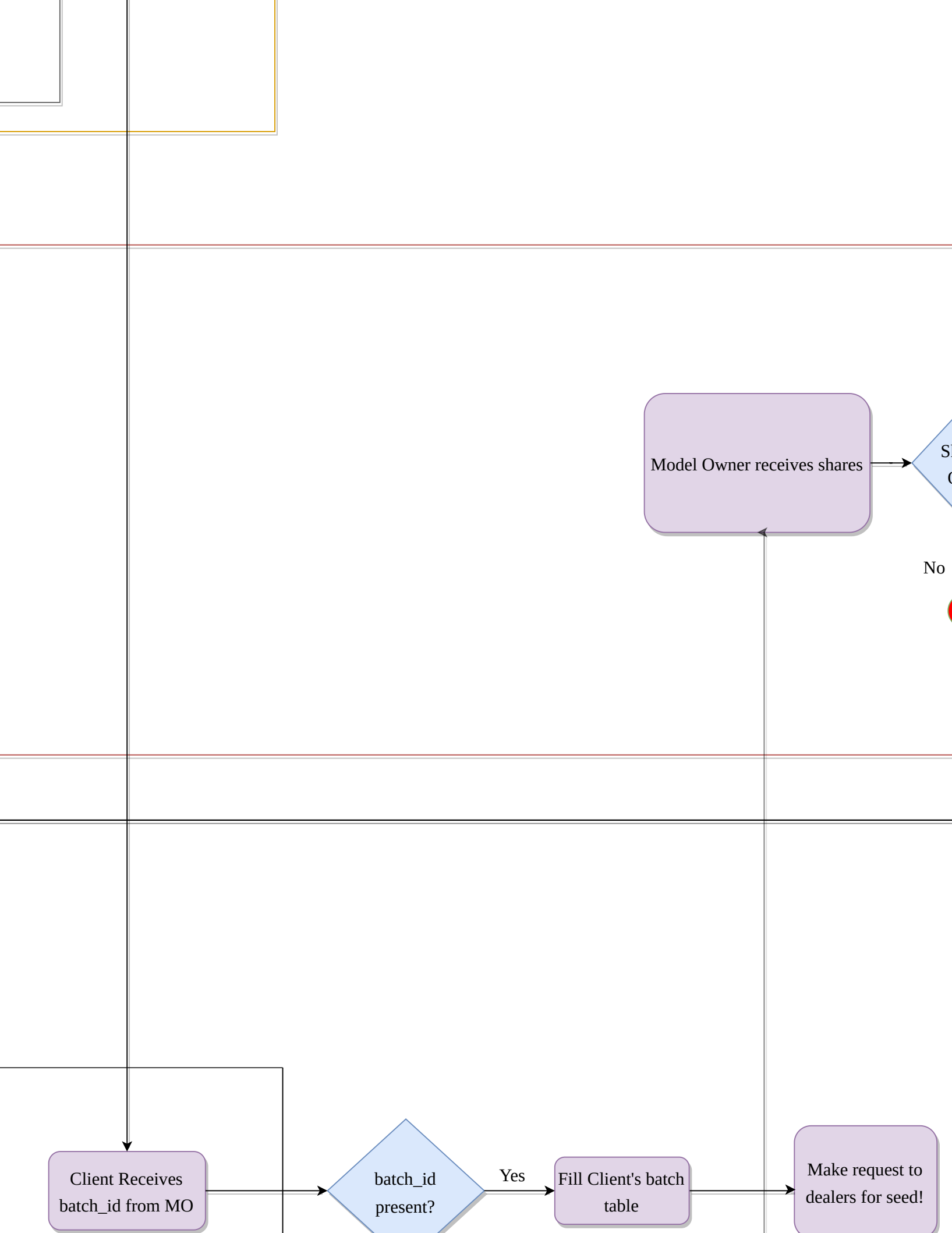

Model Owner's GRPC server
MO starts gRPC Server
(model_id)
Client Request for batch_id from MO
rop down menu appears for client for available models for inference

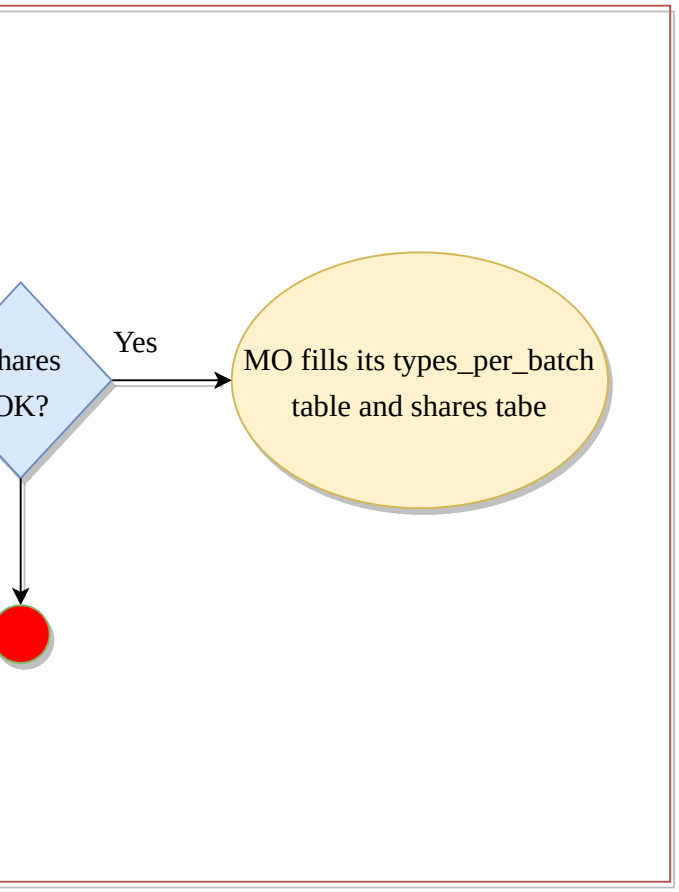
for shares from Dealer

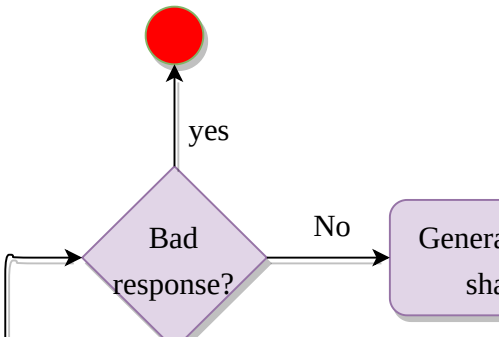
Get the required batch_id from MO's batches table

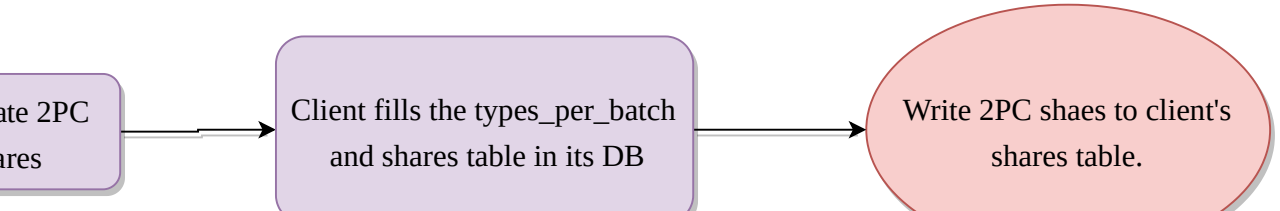
MO makes request for shares.

(batch_id)

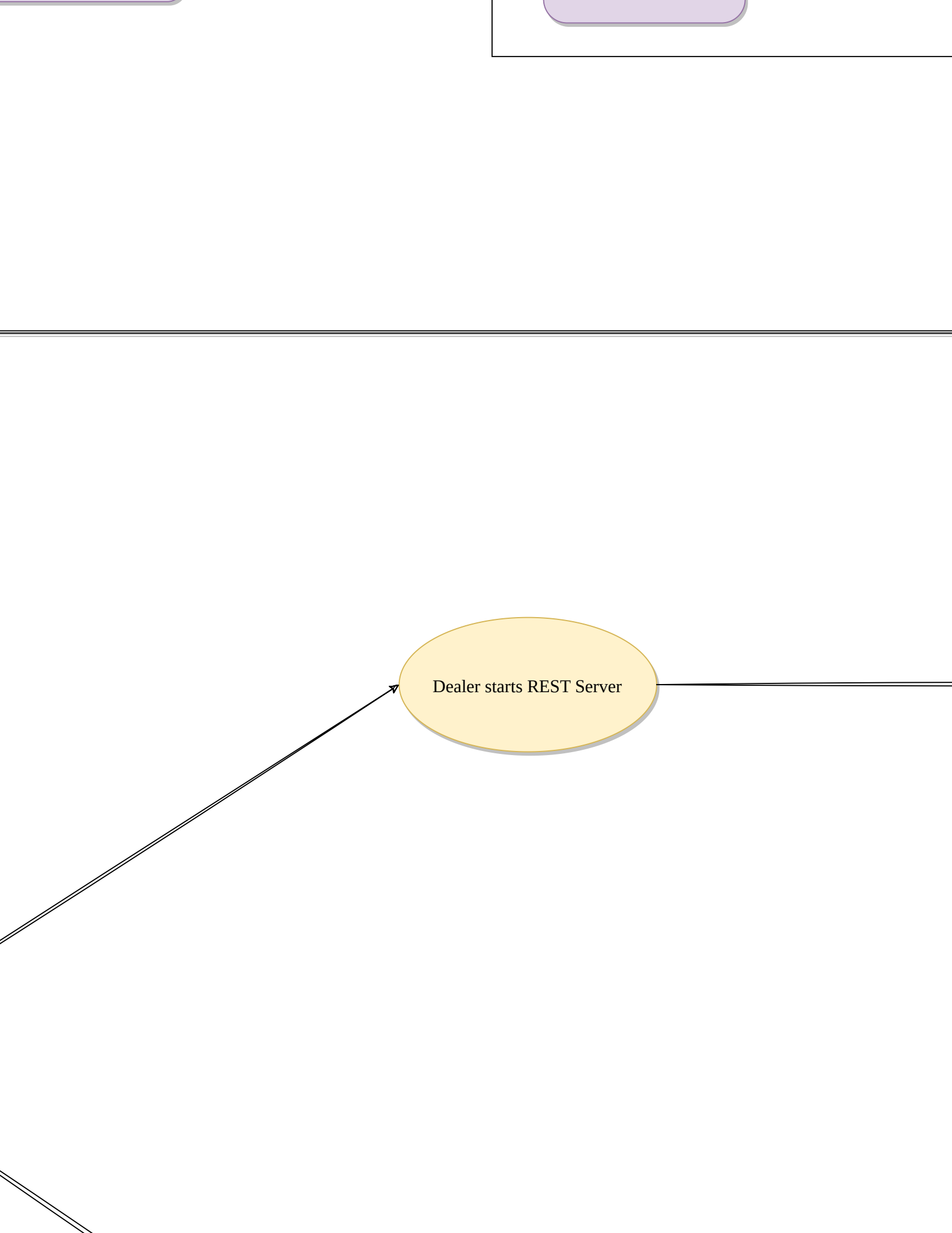

Model Owner receives shares
No
Client Receives batch_id from MO
batch_id present?
Yes
Fill Client's batch table
Make request to dealers for seed!

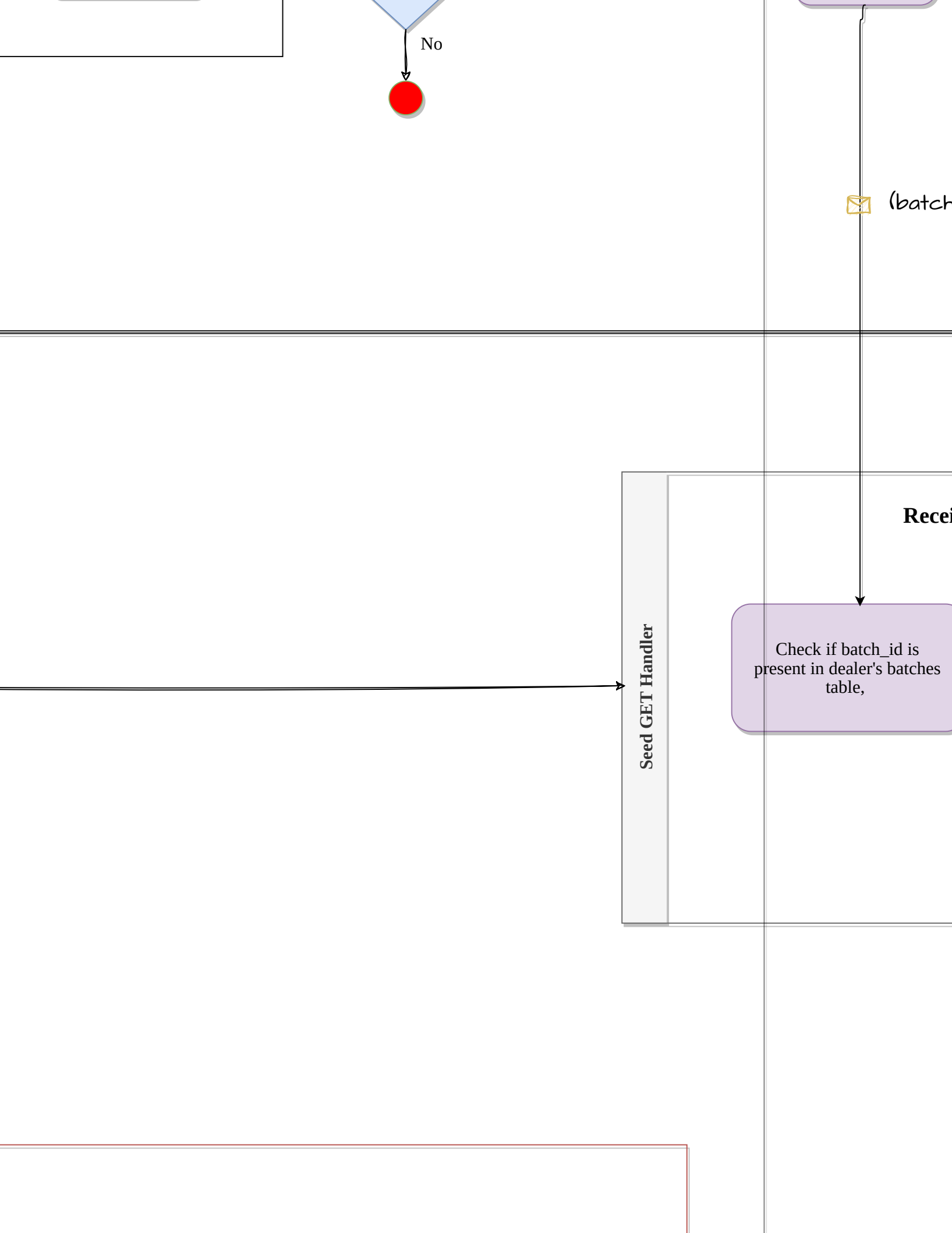

hares
OK?
Yes
MO fills its types_per_batch
table and shares tabe


yes
Bad
response?
No
Genera
sha


ate 2PC
ares
Client fills the types_per_batch and shares table in its DB
Write 2PC shaes to client's shares table.

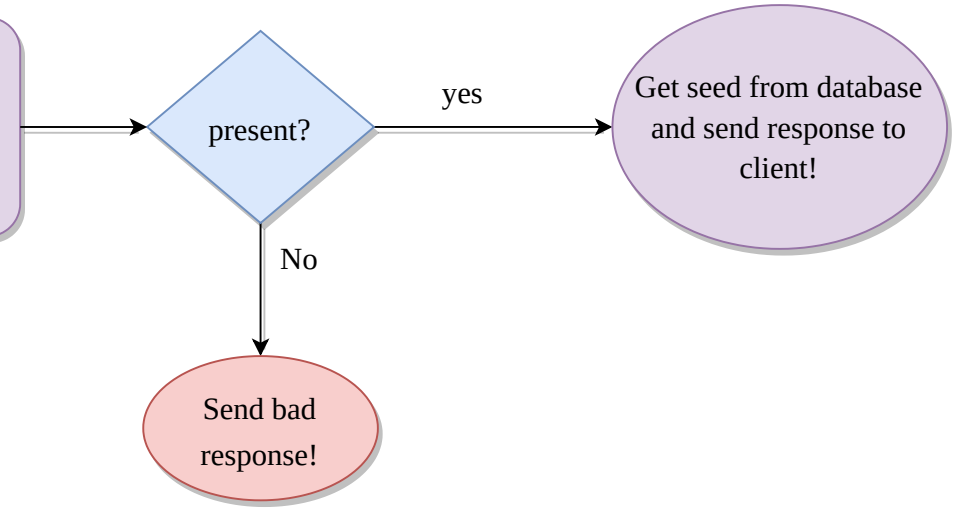
Dealer


Dealer starts REST Server


No
(batch
Seed GET Handler
Check if batch_id is present in dealer's batches table,

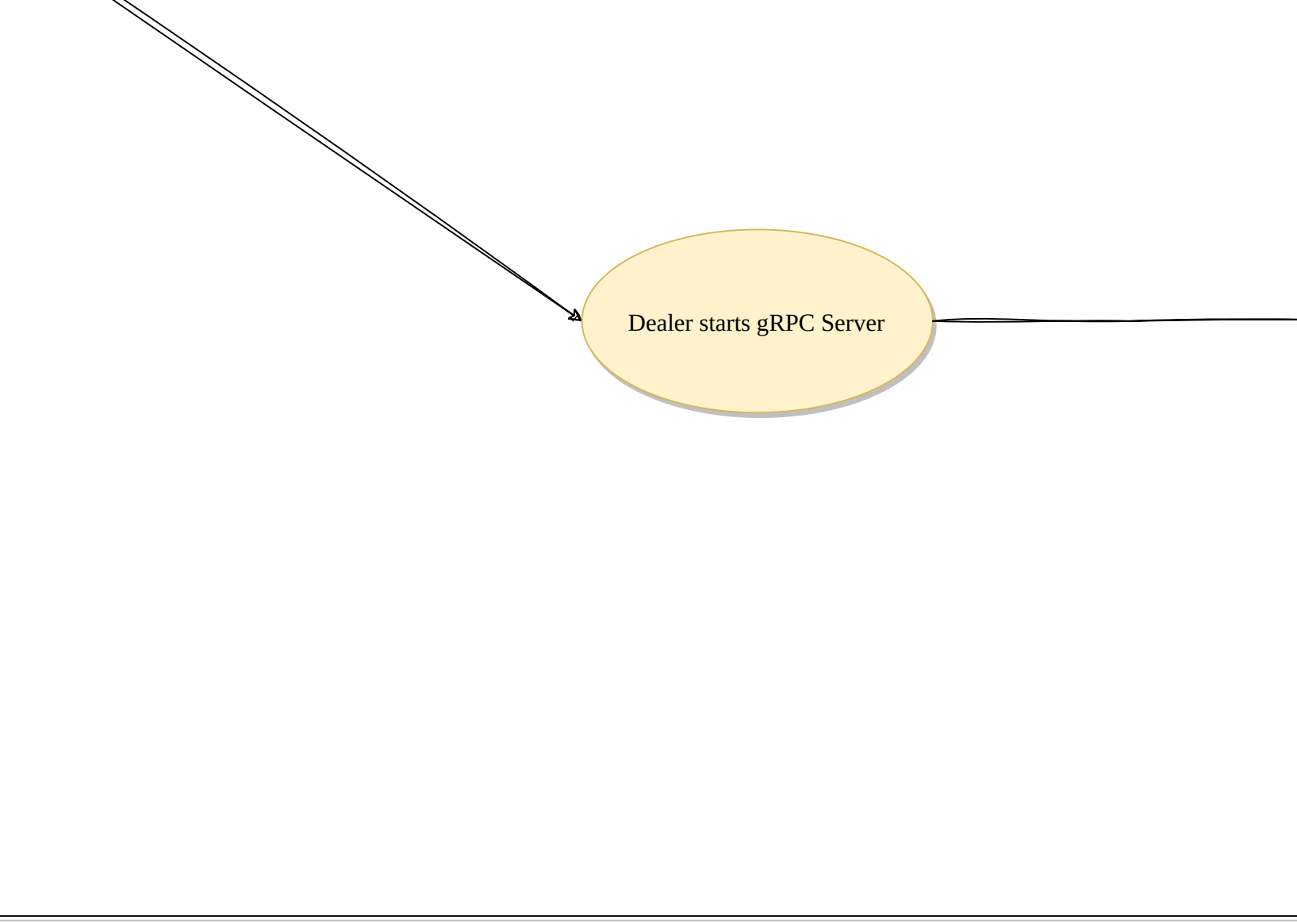
_id)

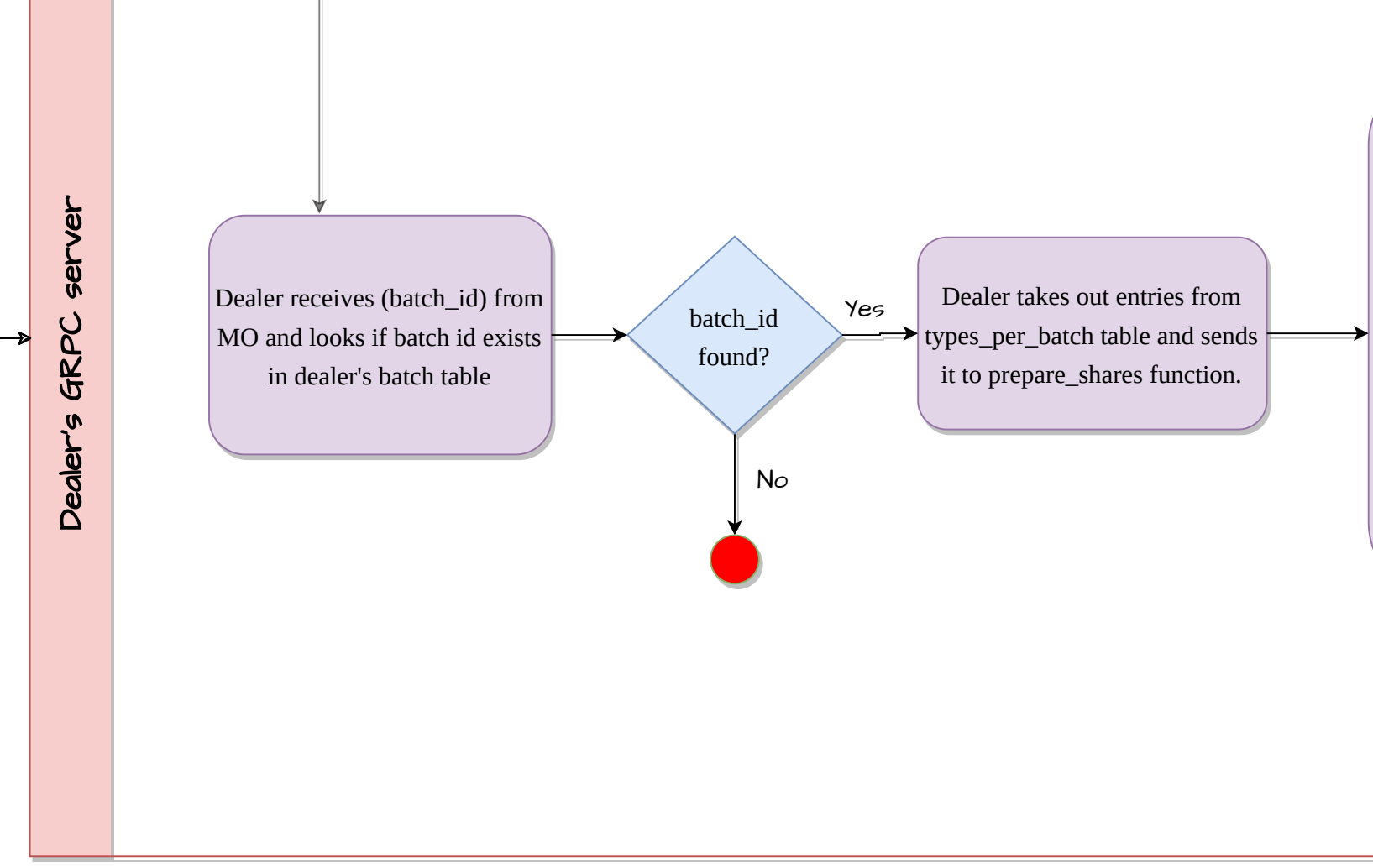
ives batch_id and Returns seed to client!

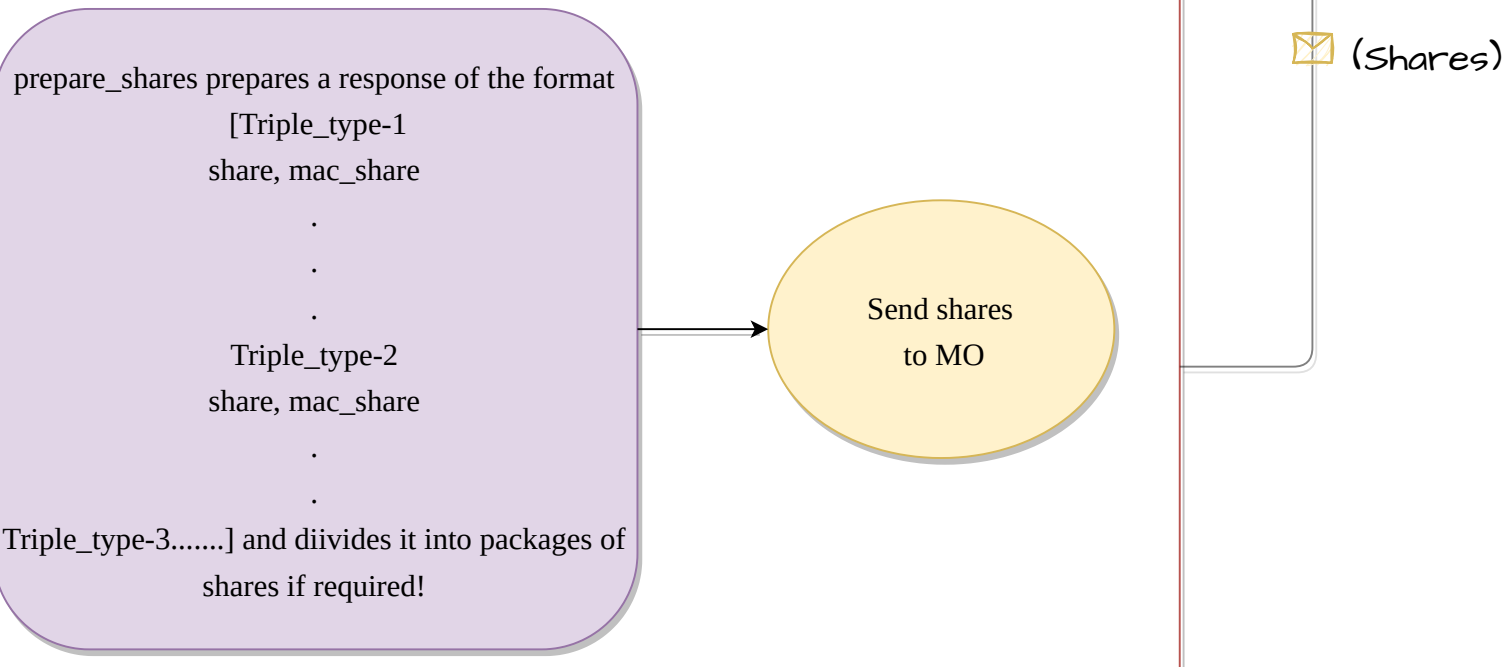


(shares_seed, mackey_m

ask)


Dealer starts gRPC Server


Dealer's GRPC server
Dealer receives (batch_id) from MO and looks if batch id exists in dealer's batch table
batch_id found?
Yes
No
Dealer takes out entries from types_per_batch table and sends it to prepare_shares function.


(Shares)
prepare_shares prepares a response of the format
[Triple_type-1
share, mac_share
.
.
.
Triple_type-2
share, mac_share
.
.
Triple_type-3.....] and diivides it into packages of shares if required!
Send shares to MO