

Liftians WMS API

Version: 1.2.0

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LIFTIANS WMS API

BASE URL: `http://<host>/wms`

POST Request example:

```
{
  "data": {"requestNo": "552195"},
  "messageType": "GET_REPLENISHMENT_REQUEST",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d64"
}
```

Parameter	Nullable	Type	Desc
msgId	No	String	msgId is created by uuid from caller, used to track input and output, to prevent repeated push of the same message.
messageType	No	String	It is the identifier of an API and used to specify the function of API.
data	No	JSON	Contain the body content of the request.

1 ADD/UPDATE PRODUCT

1.1 API DESCRIPTION

Desc	Add/Update product
MessageType	ADD_PRODUCT
Method	POST

1.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
barcode	No	String	UniqueId/UPC, If the barcode already exists, perform the update operation
productCode	No	String	Product or item number
sku	No	String	Product SKU
name	No	String	Product Name
shortName	No	String	Short name of the item, use for display on UI
packSize	Yes	String	Package size
imageUrl	No	String	The URL where the product image is stored
dimension	No	collection	Ex. length, width, height, and volume. if volume is not provided, then the volume is automatically calculated based on the length, width, and height dimensions
weight	Yes	collection	Weight of the pack
category	Yes	String	Category
sequence	Yes	int	Ex. The product with Sequence=1 is picked before the product with sequence=2.
active	Yes	Boolean	Set to true if not provided
field1	Yes	String	Extension field, returned as it is when querying product

1.3 REQUEST EXAMPLE

```
{
```

```

"data": {
  "barcode": "072705105328",
  "sku": "72705105328",
  "productCode": "17751",
  "name": "Fromm - Dog Food - Mature Adult",
  "shortName": "FROMM DOG CLASSIC MATURE 30#",
  "sequence": 1,
  "dimension": {
    "length": "0.0",
    "width": "0.0",
    "height": "0.0",
    "units": "in"
  },
  "weight": {
    "weight": "5.0",
    "units": "lb"
  },
  "packSize": "33lb",
  "imageUrl": "https://az721511.vo.msecnd.net/images/625/3127898.JPG"
},
"messageType": "ADD_PRODUCT",
"msgId": "b0bcbcd2b-7231-4cd1-97ab-c551972d3d62"
}

```

1.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
status	String	SUCCESS/ BAD_REQUEST/ FAIL
errorInfo	String	Error information

1.5 RESPONSE EXAMPLE

```

{
  "msgId": "b0bcbcd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "1",
  "data": {"status": "SUCCESS"},
  "messageType": " ADD_PRODUCT "
}

```

```
}
```

2 GET PRODUCT BY BARCODE

2.1 API DESCRIPTION

Desc	Get product by barcode
MessageType	GET_PRODUCT_BY_BARCODE
Method	POST

2.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
productBarcode	NO	String	Product barcode

2.3 REQUEST EXAMPLE

```
{
  "data": {"productBarcode": "072705105328"},
  "messageType": "GET_PRODUCT_BY_BARCODE",
  "msgId": "b0bcbcd2b-7231-4cd1-97ab-c551972d3d62"
}
```

2.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
data	JSON	Product information

2.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbcd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "1",
  "data": {
    "barcode": "072705105328",
    "sku": "72705105328",
    "productCode": "17751",
    "name": "Fromm - Dog Food - Mature Adult",
    "shortName": "FROMM DOG CLASSIC MATURE 30#",
    "dimension": {
      "length": "0.0",

```

```
"width": "0.0",  
  "height": "0.0",  
  "units": "in"  
},  
"weight": {  
  "weight": "5.0",  
  "units": "lb"  
},  
"packSize": "33lb",  
"imageUrl": "https://az721511.vo.msecnd.net/images/625/3127898.JPG"  
},  
"messageType": " GET_PRODUCT_BY_BARCODE"  
}
```

3 ADD REPLENISHMENT REQUEST

3.1 API DESCRIPTION

Desc	Add Replenishment request
MessageType	ADD_REPLENISHMENT_REQUEST
Method	POST

3.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	Replenishment request number
priority	YES	int	The priority of request (default value=1)
stationGroupid	YES	String	If it is equal to "-1" or null, the system will automatically assign the station group
productCode	NO	String	Product's code
barcode	NO	String	Product's barcode. This product barcode must exist in Liftians system before the replenish request is submitted.
sku	NO	String	Product's sku
shortName	YES	String	Product short name
lotNo	YES	String	Product lotNo
expirationDate	YES	Int	YYYYMMDD
quantity	NO	Int	The quantity of line item
rackBarcode	YES	String	Rack's barcode per item. If it is null or not provided, system will automatically assign rack

3.3 REQUEST EXAMPLE

```
{
  "data": {
    "requestNo": "552195",
    "priority": 1,
```

```

"stationGroupid": "1",
"items": [
  {
    "productCode": "39126",
    "barcode": "3588US3-BK",
    "name": "RED BARN GF LAND 22#",
    "sku": "7283899",
    "lotNo": "20220329",
    "quantity": 4,
    "rackBarcode": "1000012034"
  },
  {
    "productCode": "39348",
    "barcode": "6588US50",
    "name": "FROMM DOG GOLD WEIGHT MANAGEMENT 30#",
    "sku": "59283129",
    "lotNo": "20220512",
    "quantity": 2,
    "rackBarcode": "1000012044"
  }
]
},
"messageType": "ADD_REPLENISHMENT_REQUEST",
"msgId": "a0bcbd2b-7231-4cd1-97ab-c551972d3d63"
}

```

3.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
requestNo	String	Replenishment request number
status	String	BAD_REQUEST/ DUPLICATE_REQUEST/ FAILED/ SUCCESS
errorInfo	String	Error information

3.5 RESPONSE EXAMPLE

```

{
  "msgId": "a0bcbd2b-7231-4cd1-97ab-c551972d3d63",
  "result": "1",
  "data": {

```

```
"requestNo": "552195",  
  "status": "SUCCESS"  
},  
"messageType": "ADD_REPLENISHMENT_REQUEST"  
}
```

4 GET REPLENISHMENT REQUEST

4.1 API DESCRIPTION

Desc	Check the status of replenishment request
MessageType	GET_REPLENISHMENT_REQUEST
Method	POST

4.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	Replenishment request number

4.3 REQUEST EXAMPLE

```
{
  "data": {"requestNo": "552195"},
  "messageType": "GET_REPLENISHMENT_REQUEST",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d64"
}
```

4.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
status	String	UNASSIGNED/ ASSIGNED/ BEING_PROCESSED/ COMPLETED/ CANCELLED/ NOT_FOUND/ FAILED

4.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d64",
  "result": "1",
  "data": {
    "requestNo": "552195",
  }
}
```

```
"status": "COMPLETED",
"priority": 1,
"stationGroupid": "1",
"items": [
  {
    "productCode": "39126",
    "barcode": "3588US3-BK",
    "name": "RED BARN GF LAND 22#",
    "sku": "7283899",
    "lotNo": "20220329",
    "quantity": 4
  },
  {
    "productCode": "39348",
    "barcode": "6588US50",
    "name": "FROMM DOG GOLD WEIGHT MANAGEMENT 30#",
    "sku": "59283129",
    "lotNo": "20220512",
    "quantity": 2
  }
]
},
"messageType": "GET_REPLENISHMENT_REQUEST"
}
```

5 CANCEL REPLENISHMENT REQUEST

5.1 API DESCRIPTION

Desc	Cancel the replenishment request if it has not been assigned yet
MessageType	CANCEL_REPLENISHMENT_REQUEST
Method	POST

5.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	replenishment request number

5.3 REQUEST EXAMPLE

```
{
  "data": {"requestNo": "552195"},
  "messageType": "CANCEL_REPLENISHMENT_REQUEST",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}
```

5.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
status	String	FAIL/ SUCCESS/ NOT_FOUND
errorInfo	String	Error information

5.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "1",
  "data": {
    "requestNo": "552195",
    "status": "SUCCESS"
  },
  "messageType": "CANCEL_REPLENISHMENT_REQUEST"
}
```

6 UPDATE REPLENISHMENT REQUEST

6.1 API DESCRIPTION

Desc	Update replenishment request if it has not been assigned yet
MessageType	UPDATE_REPLENISHMENT_REQUEST
Method	POST

6.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	Replenishment request number
priority	YES	int	The priority of request (default value=1)
stationGroupid	YES	String	If it is equal to "-1" or null, the system will automatically assign the station group
productCode	NO	String	Product code
barcode	NO	String	Product barcode
sku	NO	String	Product sku
shortName	YES	String	Product short name
lotNo	YES	String	Product lotNo
expirationDate	YES	Int	YYYYMMDD
quantity	NO	Int	The quantity of line item
rackBarcode	YES	String	Rack's barcode. If it is null or not provided, system will automatically assign rack

6.3 REQUEST EXAMPLE

```
{
  "data": {
    "requestNo": "552195",
    "priority": 1,
    "stationGroupid": "1",
    "items": [
      {
        "productCode": "39126",
        "barcode": "3588US3-BK",
        "name": "RED BARN GF LAND 22#",
        "sku": "7283899",
        "lotNo": "20220329",

```

```

        "quantity": 1
      },
      {
        "productCode": "39348",
        "barcode": "6588US50",
        "name": "FROMM DOG GOLD WEIGHT MANAGEMENT 30#",
        "sku": "59283129",
        "lotNo": "20220512",
        "quantity": 8
      }
    ]
  },
  "messageType": "UPDATE_REPLENISHMENT_REQUEST",
  "msgId": "a0bcbd2b-7231-4cd1-97ab-c551972d3d63"
}
    
```

6.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
requestNo	String	Replenishment request number
status	String	NOT_FOUND/ FAIL/ SUCCESS
errorInfo	String	Error information

6.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "1",
  "data": {
    "requestNo": "552195",
    "status": "SUCCESS"
  },
  "messageType": "UPDATE_REPLENISHMENT_REQUEST"
}
```

7 ADD PICK REQUEST

7.1 API DESCRIPTION

Desc	Add pick request
MessageType	ADD_PICK_REQUEST
Method	POST

7.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	Pick request number or order number
priority	YES	int	The priority of request (default value=1)
type	YES	String	Ex. store, ecommerce
stationGroupid	YES	String	If it is equal to "-1" or null, the system will automatically assign the station group
productCode	NO	String	Product code
barcode	NO	String	Product's barcode. This product barcode must exist in Liftians system before the replenish request is submitted.
sku	NO	String	Product sku
shortName	YES	String	Product short name
lotNo	YES	String	Product lotNo
expirationDate	YES	Int	YYYYMMDD
quantity	NO	Int	The quantity of line item
accountNumber	NO	String	Account number for the trading partner associated with the order request
orderNumber	NO	String	The order number associated with pick request
orderDate	NO	String	"YYYY-MM-DD hh:mm:ss"
rackBarcode	YES	String	Rack's barcode. If it is null or not provided, system will automatically choose a rack
putawayType	YES	String	Specify putaway container type per Order level. Ex. "putwall", "pallet" etc. If it is null, the system will automatically assign the default putawayType
putawayBarcode	YES	String	Specify putaway location Barcode if putawayType is "putwall". If putawayBarcode is null, the system will automatically choose putaway location

isLiftiansOnly	YES	Boolean	Indicate whether all the items in the entire order are picked only from Liftians system. The default value is true .
----------------	-----	---------	---

7.3 REQUEST EXAMPLE

```

{
  "data": {
    "requestNo": "123456",
    "type": "store",
    "priority": 1,
    "accountNumber": "106",
    "stationGroupid": "1",
    "orders": [
      {
        "orderNumber": "CID106-Date-2020-12-08",
        "orderDate": "2018-03-05 14:25:38",
        "putawayType": "putwall",
        "isLiftiansOnly": false,
        "items": [
          {
            "productCode": "39126",
            "barcode": "3588US3-BK",
            "name": "RED BARN GF LAND 22#",
            "sku": "7283899",
            "lotNo": "20220329",
            "quantity": 1,
            "putawayBarcode": "78237d1"
          },
          {
            "productCode": "39348",
            "barcode": "6588US50",
            "name": "FROMM DOG GOLD WEIGHT MANAGEMENT 30#",
            "sku": "59283129",
            "lotNo": "20220512",
            "quantity": 1,
            "putawayBarcode": "78237d1"
          }
        ]
      }
    ]
  },
  "messageType": "ADD_PICK_REQUEST",
  "msgId": "a1bcbd2b-7231-4cd1-97ab-c551972d3d63"
}

```

7.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
requestNo	String	OrderId
status	String	BAD_REQUEST/ DUPLICATE_REQUEST/ FAILED/ SUCCESS
errorInfo	String	Error information

7.5 RESPONSE EXAMPLE

```
{
  "msgId": "a1bcbd2b-7231-4cd1-97ab-c551972d3d63",
  "result": "1",
  "data": {
    "requestNo": "123456",
    "status": "SUCCESS"
  },
  "messageType": "ADD_PICK_REQUEST"
}
```

8 GET PICK REQUEST

8.1 API DESCRIPTION

Desc	Get pick request by request number
MessageType	GET_PICK_REQUEST
Method	POST

8.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	Pick request's request number

8.3 REQUEST EXAMPLE

```
{
  "data": {"requestNo": "123456"},
  "messageType": "GET_PICK_REQUEST",
  "msgId": "g1bcbd2b-7231-4cd1-97ab-c551972d3d63"
}
```

8.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
status	String	UNASSIGNED/ ASSIGNED/ BEING_PROCESSED/ COMPLETED/ CANCELLED/ NOT_FOUND/ FAILED

8.5 RESPONSE EXAMPLE

```
{
  "data": {
    "requestNo": "123456",
  }
}
```

```
"type": "store",
"priority": 1,
"accountNumber": "106",
"stationGroupid": "1",
"orders": [
{"orderNumber": "CID106-Date-2020-12-08",
"orderDate": "2018-03-05 14:25:38",
"items": [
{
"productCode": "39126",
"barcode": "3588US3-BK",
"name": "RED BARN GF LAND 22#",
"sku": "7283899",
"lotNo": "20220329",
"quantity": 1
},
{
"productCode": "39348",
"barcode": "6588US50",
"name": "FROMM DOG GOLD WEIGHT MANAGEMENT 30#",
"sku": "59283129",
"lotNo": "20220512",
"quantity": 1
}
]]
},
"messageType": "GET_PICK_REQUEST",
"msgId": "g1bcbd2b-7231-4cd1-97ab-c551972d3d63"
}
```

9 CANCEL PICK REQUEST

9.1 API DESCRIPTION

Desc	Cancel the pick request if it has not been assigned yet
MessageType	CANCEL_PICK_REQUEST
Method	POST

9.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	pick request number

9.3 REQUEST EXAMPLE

```
{
  "data": {"requestNo": "123456"},
  "messageType": "CANCEL_PICK_REQUEST",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}
```

9.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
status	String	FAIL/ SUCCESS/ NOT_FOUND
errorInfo	String	Error information

9.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "1",
  "data": {
    "requestNo": "123456",
    "status": "SUCCESS"
  }
}
```

```
},  
  "messageType": "CANCEL_PICK_REQUEST"  
}
```

10 UPDATE PICK REQUEST

10.1 API DESCRIPTION

Desc	Update pick request if it has not been assigned yet
MessageType	UPDATE_PICK_REQUEST
Method	POST

10.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	Pick request number or order number
priority	YES	int	The priority of request (default value=1)
stationGroupid	YES	String	If it is equal to "-1" or null, the system will automatically assign the station group
productCode	NO	String	Product code
barcode	NO	String	Product barcode
sku	NO	String	Product sku
shortName	YES	String	Product short name
lotNo	YES	String	Product lotNo
expirationDate	YES	Int	YYYYMMDD
quantity	NO	Int	The quantity of line item
accountNumber	NO	String	Account number for the trading partner associated with the order of the pick request
orderNumber	NO	String	The order number associated with pick request
orderDate	NO	String	"YYYY-MM-DD hh:mm:ss"
rackBarcode	YES	String	Rack's barcode. If it is null or not provided, system will automatically choose a rack
putawayType	YES	String	Specify putaway container type per Order level. Ex. "putwall", "pallet" etc. If it is null, the system will automatically assign the default putawayType
putawayBarcode	YES	String	Specify putaway location Barcode if putawayType is "putwall". If putawayBarcode is null, the system will automatically choose putaway location

isLiftiansOnly	YES	Boolean	Indicate whether all the items in the entire order are picked only from Liftians system. The default value is true.
----------------	-----	---------	---

10.3 REQUEST EXAMPLE

```
{
  "data": {
    "requestNo": "123456",
    "type": "store",
    "priority": 1,
    "accountNumber": "106",
    "stationGroupid": "1",
    "orders": [
      {
        "orderNumber": "CID106-Date-2020-12-08",
        "orderDate": "2018-03-05 14:25:38",
        "putawayType": "putwall",
        "isLiftiansOnly": false,
        "items": [
          {
            "productCode": "39126",
            "barcode": "3588US3-BK",
            "name": "RED BARN GF LAND 22#",
            "sku": "7283899",
            "lotNo": "20220329",
            "quantity": 1,
            "putawayBarcode": "78237d1"
          },
          {
            "productCode": "39348",
            "barcode": "6588US50",
            "name": "FROMM DOG GOLD WEIGHT MANAGEMENT 30#",
            "sku": "59283129",
            "lotNo": "20220512",
            "quantity": 1,
            "putawayBarcode": "78237d1"
          }
        ]
      }
    ]
  },
  "messageType": "ADD_PICK_REQUEST",
  "msgId": "a1bcbd2b-7231-4cd1-97ab-c551972d3d63"
}
```

10.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
requestNo	String	pick request number
status	String	NOT_FOUND/ FAIL/ SUCCESS
errorInfo	String	Error information

10.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "1",
  "data": {
    "requestNo": "123456",
    "status": "SUCCESS"
  },
  "messageType": "UPDATE_PICK_REQUEST"
}
```

11 GET INVENTORY BY PRODUCT BARCODE

11.1 API DESCRIPTION

Desc	Get the inventory by product barcode
MessageType	GET_INVENTORY_BY_PRODUCT_BARCODE
Method	POST

11.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
barcode	NO	String	Product barcode

11.3 REQUEST EXAMPLE

```
{
  "data": {"barcode": "3588US3-BK"},
  "messageType": "GET_INVENTORY_BY_PRODUCT_BARCODE",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}
```

11.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
data	JSON	Product inventory information

11.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "1",
  "data": [
    {
      "productCode": "39126",
      "productBarcode": "3588US3-BK",
      "productShortName": "RED BARN GF LAND 22#",
      "sku": "7283899",
      "locations": [
        {
          "rackBarcode": "100001011",

```

```
"rackid": "1",
  "lotNo": "20220329",
  "expirationDate": "20220329",
  "quantity": 88
},
{
  "rackBarcode": "1000008032",
  "rackid": "8",
  "lotNo": "20220530",
  "expirationDate": "20220530",
  "quantity": 25
}
]
}
],
"messageType": "GET_INVENTORY_BY_PRODUCT_BARCODE"
}
```

12 GET INVENTORY BY RACKID

12.1 API DESCRIPTION

Desc	Get the inventory by rack ID
MessageType	GET_INVENTORY_BY_RACKID
Method	POST

12.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
rackid	NO	String	Rack ID

12.3 REQUEST EXAMPLE

```
{
  "data": {
    "rackID": "1"
  },
  "messageType": "GET_INVENTORY_BY_RACKID",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}
```

12.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
data	JSON	Product inventory information

12.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "2",
  "data": [
    {
      "rackid": "1",
      "inventory": [
        {"rackBarcode": "1000001011",
          "productCode": "39126",
```

```
"productBarcode": "3588US3-BK",
"productShortName": "RED BARN GF LAND 22#",
"sku": "7283899",
"lotNo": "20220329",
"expirationDate": "20220329",
"quantity": 88
},
{"rackBarcode": "1000001111",
"productCode": "39348",
"productBarcode": "6588US50",
"productShortName": "FROMM DOG GOLD WEIGHT MANAGEMENT 30#",
"sku": "59283129",
"lotNo": "20220512",
"expirationDate": "20220512",
"quantity": 20
}
]
},
"messageType": "GET_INVENTORY_BY_RACKID"
}
```

13 UPDATE INVENTORY BY PRODUCT & RACK

BARCODE

13.1 API DESCRIPTION

Desc	<p>update the inventory by rack and product barcode.</p> <p>Note: This API is not used for inserting inventory when this rackBarcode location is empty. The product's inventory should be created through the replenishment process. If there is no product in this rackBarcode location, we should not allow users to update inventory using this API. This API is mainly used for correcting the inventory quantity of products after cycle count.</p>
MessageType	UPDATE_INVENTORY_BY_PRODUCT_RACK_BARCODE
Method	POST

13.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
productBarcode	NO	String	Product's barcode. This product barcode must exist in Liftians system before the replenish request is submitted.
rackBarcode	NO	String	Rack barcode
quantity	NO	Int	New quantity

13.3 REQUEST EXAMPLE

```

{
  "data": {
    "productBarcode": "3588US3-BK",
    "rackBarcode": "1000001011",
    "quantity": 80
  },
  "messageType": "UPDATE_INVENTORY_BY_PRODUCT_RACK_BARCODE",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}

```

13.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
status	String	NOT_FOUND/ FAIL/ SUCCESS
errorInfo	String	Error information

13.5 RESPONSE EXAMPLE

```
{  
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62",  
  "result": "1",  
  "data": {  
    "status": "SUCCESS"  
  },  
  "messageType": "UPDATE_INVENTORY_BY_PRODUCT_RACK_BARCODE"  
}
```

14 PULL OUT RACK FOR CYCLE COUNT

14.1 API DESCRIPTION

Desc	Pull out rack by rack id and rack face for cycle count
MessageType	CYCLE_COUNT_BY_RACK
Method	POST

14.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
rackid	NO	String	Rack ID
rackface	NO	String	Rack face
stationid	NO	String	Station id

14.3 REQUEST EXAMPLE

```
{
  "data": {
    "rackid": "8",
    "rackface": "0",
    "stationid": "1"
  },
  "messageType": "CYCLE_COUNT_BY_RACK",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}
```

14.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
data	JSON	Product inventory information

14.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "1",
  "data": {
    "rackid": "8",
```

```
"rackface": "0",
"inventory": [
  {"rackBarcode": "1000008011",
    "productBarcode": "3588US3-BK",
    "productShortName": "RED BARN GF LAND 22#",
    "sku": "7283899",
    "quantity": 88 }
  ],
"messageType": "CYCLE_COUNT_BY_RACK"
}
```

15 ADD RACK CONTAINER

15.1 API DESCRIPTION

Desc	Add rack container
MessageType	ADD_RACK_CONTAINER
Method	POST

15.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
rackBarcode	NO	String	Rack barcode. Unique identifier. For example, 1000012034 stands for rackid="12", rackface="0", racktierNum="3", rackContainerNum="4"
rackid	NO	String	Rack ID
racktypeid	NO	String	Rack type ID Example, "1"= Pallet "2"= 2-tier "3"= 3-tier "4"= 4-tier
rackface	NO	String	Rack face (ex. "0", "1", "2", "3")
racktierNum	NO	String	Rack tier number (ex. "1", "2", "3")
rackContainerNum	NO	String	Rack container number (ex. "1", "2", "3")
dimension	NO	JSON	Ex. length, width, height, and unit.
transport	YES	Boolean	If transport=true, rack can be moved by robot. Default value:true

15.3 REQUEST EXAMPLE

```
{
  "data": {
    "rackid": "12",
```

```

"racktypeid": "1",
"rackBarcode": "1000012034",
"rackface": "0",
"racktierNum": "3",
"rackContainerNum": "4",
"dimension": {
  "length": "0.0",
  "width": "0.0",
  "height": "0.0",
  "units": "in"
}
},
"messageType": "ADD_RACK_CONTAINER",
"msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}

```

15.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
status	String	SUCCESS/ BAD_REQUEST/ FAIL
errorInfo	String	Error information

15.5 RESPONSE EXAMPLE

```

{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "1",
  "data": {"status": "SUCCESS"},
  "messageType": "ADD_RACK_CONTAINER"
}

```

16 GET RACK CONTAINER

16.1 API DESCRIPTION

Desc	Get rack container information
MessageType	GET_RACK_CONTAINER
Method	POST

16.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
rackBarcode	NO	String	Rack barcode. Unique identifier.

16.3 REQUEST EXAMPLE

```
{
  "data": [
    {"rackBarcode": "1000001011"},
    {"rackBarcode": "1000150155"}
  ],
  "messageType": "GET_RACK_CONTAINER",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}
```

16.4 RESPONSE DESCRIPTION

Parameter	Nullable	Type	Desc
rackBarcode	NO	String	Rack barcode. Unique identifier.
rackid	NO	String	Rack ID
racktypeid	NO	String	Rack type ID "1"= Pallet "2"= 2-tier "3"= 3-tier "4"= 4-tier
rackface	NO	String	Rack face (ex. "0", "1", "2", "3")
racktierNum	NO	String	Rack tier number (ex. "1", "2", "3")
rackContainerNum	NO	String	Rack container number (ex. "1", "2", "3")
dimension	NO	JSON	Ex. length, width, height, and unit.
transport	NO	Boolean	Default value:true

16.5 RESPONSE EXAMPLE

```

{"data":
  [{"rackid": "1",
    "racktypeid": "1",
    "rackBarcode": "1000001011",
    "rackface": "0",
    "racktierNum": "1",
    "rackContainerNum": "1",
    "transport": true,
    "dimension": {
      "length": "10",
      "width": "20",
      "height": "12",
      "units": "in"}
  }],
  {
    "rackid": "150",
    "racktypeid": "1",
    "rackBarcode": "1000150155",
    "rackface": "1",
  }
}

```

```

"racktierNum": "5",
"rackContainerNum": "5",
"transport": true,
"dimension": {
  "length": "10",
  "width": "15",
  "height": "12",
  "units": "in"}
}]
,
"messageType": "GET_RACK_CONTAINER",
"msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}

```

17 UPDATE RACK CONTAINER

17.1 API DESCRIPTION

Desc	update rack container
MessageType	UPDATE_RACK_CONTAINER
Method	POST

17.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
rackBarcode	NO	String	Rack barcode. Unique identifier.
rackid	NO	String	Rack ID
racktypeid	NO	String	Rack type ID "1"= Pallet "2"= 2-tier "3"= 3-tier "4"= 4-tier
rackface	NO	String	Rack face (ex. "0", "1", "2", "3")
racktierNum	NO	String	Rack tier number (ex. "1", "2", "3")
rackContainerNum	NO	String	Rack container number (ex. "1", "2", "3")
dimension	NO	JSON	Ex. length, width, height, and unit.
transport	YES	Boolean	. Default value:true

17.3 REQUEST EXAMPLE

```

{
  "data": {

```

```

"rackid": "1",
"racktypeid": "1",
"rackBarcode": "1000001011",
"rackface": "0",
"racktierNum": "1",
"rackContainerNum": "1",
"dimension": {
  "length": "0.0",
  "width": "0.0",
  "height": "0.0",
  "units": "in"
}
},
"messageType": "UPDATE_RACK_CONTAINER",
"msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}

```

17.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
status	String	NOT_FOUND/ FAIL/ SUCCESS
errorInfo	String	Error information

17.5 RESPONSE EXAMPLE

```

{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62",
  "result": "1",
  "data": {"status": "SUCCESS"},
  "messageType": "UPDATE_RACK_CONTAINER"
}

```

18 GET ALL ACTIVE RACKS

18.1 API DESCRIPTION

Desc	Get all active racks
MessageType	GET_ALL_RACK
Method	POST

18.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
-----------	----------	------	------

18.3 REQUEST EXAMPLE

```
{
  "messageType": "GET_ALL_RACK",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}
```

18.4 RESPONSE DESCRIPTION

Parameter	Nullable	Type	Desc
rackid	NO	String	Rack ID
racktypeid	YES	String	Rack type ID "1"= Pallet "2"= 2-tier "3"= 3-tier "4"= 4-tier
transport	YES	Boolean	Default value:true
rackBarcode	YES	array of String	Rack barcode

18.5 RESPONSE EXAMPLE

```
{
  "data": {
    "racks": [
      {
        "rackid": "1",
        "racktypeid": "2",
        "transport": true,

```

```
"rackBarcodes": ["1000001011","1000001012","1000001021"]},
{"rackid": "2",
"racktypeid": "1",
"transport": true,
"rackBarcodes": ["1000002011"]},
{"rackid": "3",
"racktypeid": "1",
"transport": true,
"rackBarcodes": ["1000003011","1000003012","1000003021","1000003031"]},
{"rackid": "4",
"racktypeid": null,
"transport": null,
"rackBarcodes": []}
]
},
"messageType": "GET_ALL_RACK",
"msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d62"
}
```

19 ADD CYCLE COUNT REQUEST

19.1 API DESCRIPTION

Desc	Add Cycle Count request
MessageType	ADD_CYCLE_COUNT_REQUEST
Method	POST

19.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	Cycle count request number
priority	YES	int	The priority of request (default value=1)
stationid	YES	String	If it is equal to "-1" or null, Liftians system will automatically assign the station
productBarcode	NO	String	Product barcode
expectedQuantity	NO	Int	The expected quantity of line item
rackBarcode	NO	String	Rack's barcode per item.

19.3 REQUEST EXAMPLE

```
{
  "data": {
    "requestNo": "552195",
    "priority": 1,
    "stationid": "101",
    "rackBarcode": "1000012034",
    "expectedQuantity": 40,
    "productBarcode": "3588US3-BK"
  },
  "messageType": "ADD_CYCLE_COUNT_REQUEST",
  "msgId": "a0bcbd2b-7231-4cd1-97ab-c551972d3d63"
}
```

19.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
requestNo	String	Cycle count request number
status	String	BAD_REQUEST/ DUPLICATE_REQUEST/ FAILED/ SUCCESS
errorInfo	String	Error information

19.5 RESPONSE EXAMPLE

```

{
  "msgId": "a0bcbd2b-7231-4cd1-97ab-c551972d3d63",
  "result": "1",
  "data": {
    "requestNo": "552195",
    "status": "SUCCESS"
  },
  "messageType": "ADD_CYCLE_COUNT_REQUEST"
}

```

20 EXECUTE REPLENISHMENT REQUEST

20.1 API DESCRIPTION

Desc	Submit replenishment request for execution
MessageType	EXECUTE_REPLENISHMENT_REQUEST
Method	POST

20.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	Replenishment request number
stationid	YES	String	Station id

20.3 REQUEST EXAMPLE

```
{
  "data": {"requestNo": "552195",
    "stationid": "1" },
  "messageType": "EXECUTE_REPLENISHMENT_REQUEST",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d64"
}
```

20.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
status	String	NOT_FOUND/ FAIL/ SUCCESS
errorInfo	String	Error information

20.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d64",
  "result": "1",
  "data": {
    "status": "SUCCESS"
  },
  "messageType": "EXECUTE_REPLENISHMENT_REQUEST"
}
```

```
}
```

21 EXECUTE PICK REQUEST

21.1 API DESCRIPTION

Desc	Submit pick request for execution
MessageType	EXECUTE_PICK_REQUEST
Method	POST

21.2 REQUEST DESCRIPTION

Parameter	Nullable	Type	Desc
requestNo	NO	String	Pick request number

21.3 REQUEST EXAMPLE

```
{
  "data": {"requestNo": "552195"},
  "messageType": "EXECUTE_PICK_REQUEST",
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d64"
}
```

21.4 RESPONSE DESCRIPTION

Parameter	Type	Desc
status	String	NOT_FOUND/ FAIL/ SUCCESS
errorInfo	String	Error information

21.5 RESPONSE EXAMPLE

```
{
  "msgId": "b0bcbd2b-7231-4cd1-97ab-c551972d3d64",
  "result": "1",
  "data": {
    "status": "SUCCESS"
  },
  "messageType": "EXECUTE_PICK_REQUEST"
}
```

I.Appendix – Outbound FeedBack

EndPoint: HTTP://<server IP>:<port>

1 Return Replenishment Status

/reqstatus

METHOD: POST

REQUEST:

```
{
  "data": {
    "requestNo": "235690",
    "requestType": "replenish",
    "status": "completed",
    "shortage": true,
    "full": false,
    "items": [
      {
        "productCode": "39126",
        "barcode": "3588US3-BK",
        "rackBarcode": "1000001011",
        "completeQty": 4,
        "shortQty": 0,
        "fullQty": 0
      },
      {
        "productCode": "39128",
        "barcode": "4588US3-BK",
        "rackBarcode": "1000008011",
        "completeQty": 3,
        "shortQty": 1,
        "fullQty": 0
      }
    ]
  }
}
```

2 Return Pick Status

/reqstatus

METHOD: POST

REQUEST:

```
{
  "data": {
    "requestNo": "123456",
    "requestType": "pick",
    "orders": [
      {"orderNumber": "CID106-Date-2020-12-08",

        "status": "completed",
        "shortage": true,
        "putaways": [
          {"putawayBarcode": "677829701",

            "items": [
              {
                "productCode": "39126",
                "barcode": "3588US3-BK",
                "completeQty": 4,
                "shortQty": 0
              },
              {
                "productCode": "39128",
                "barcode": "4588US3-BK",
                "completeQty": 3,
                "shortQty": 1
              }
            ]
          }
        ]
      }
    ]
  }
}
```

3 Return Cycle Count Status

/reqstatus

METHOD: POST

REQUEST:

```
{
  "data": {
    "requestNo": "124690",
    "requestType": "cyclecount",
    "status": "completed",
    "items": [
      {
        "productCode": "39126",
        "barcode": "3588US3-BK",
        "rackBarcode": "1000001011",
        "quantity": 4,
        "expectedQuantity": 4,
        "recount": false
      },
      {
        "productCode": "39128",
        "barcode": "4588US3-BK",
        "rackBarcode": "1000004011",
        "quantity": 84,
        "expectedQuantity": 100,
        "recount": true
      }
    ]
  }
}
```

4 New Rack Added

/newrack

METHOD: POST

REQUEST:

```
{  
  "data": {  
    "rackid": "800",  
    "racktypeid": "1",  
    "rackBarcode": "1000800011",  
    "transport": true  
  }  
}
```