

City-Link Express Web Service (RESTful)

Developers Reference Guide

(Testing)

Scope of this API Document

City-Link Express SDK is intended to provide simple to implement and easy-to-use programming guidance for developer to get started with the City-Link system integration. This manual covers the functionalities provided by City-Link Express SDK.

To access the web service, developer will need security credentials namely the CompanyCode, AccountNo and MeterNum which will be provided by City-Link.

General API Process Flow

Generally, when consuming City-Link web service methods with JSON input and JSON response data, the following happens in sequence:

- Request access Token by providing Account Number, Meter Number, and company code supplied by City-link. Access Token validity is seven (7) days.
 - If Success, Store Access token for future request.
 - If Fail, check on credential information or contact us for support.
- Perform Shipment request / Tracking function by supplying credential and access token in request header. Input data will be validated against parameter requirement stated in this document below.
 - If input data is valid, response will be provided as per sample below.
 - If input data is invalid, please check Return code and description.

Return code Reference:

Return Code	Description
00	Success
01	Invalid httpContext given
02	Token missing in message header
03	TransactionIdentifier missing in message header
04	AccountNumber missing in message header
05	CompanyCode missing in message header
06	MeterNumber missing in message header
07	VerifyAccount return error
08	Account information not exists
09	TransactionIdentifier length cannot be greater than 40 characters
10	Service Type missing in message body
11	Service Type is not valid

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12	Package Type required in message body
13	Package Type is not valid
14	Weight required in message body
15	Weight must be decimal type
16	Weight units required in message body
17	Weight units length cannot be greater than 3 characters
18	Currency Code required in message body
19	Currency Code length cannot be greater than 3 characters
20	Declaredvalue must be decimal type
21	Shipper information required in message body
22	Shipper contactperson required in message body
23	Shipper contactperson length cannot be greater than 50 characters
24	Shipper name required in message body
25	Shipper name length cannot be greater than 50 characters
26	Shipper tel required in message body
27	Shipper tel length cannot be greater than 25 characters
28	Shipper addressline1 required in message body
29	Shipper addressline1 length cannot be greater than 50 characters
30	Shipper addressline2 required in message body
31	Shipper addressline2 length cannot be greater than 50 characters
32	Shipper addressline3 required in message body
33	Shipper addressline3 length cannot be greater than 50 characters
34	Shipper city required in message body
35	Shipper city length cannot be greater than 20 characters
36	Shipper state required in message body
37	Shipper state length cannot be greater than 20 characters
38	Shipper postcode required in message body
39	Shipper postcode length cannot be greater than 10 characters
40	Shipper countrycode required in message body
41	Shipper countrycode length cannot be greater than 2 characters
42	Consignee information required in message body
43	Consignee contactperson required in message body
44	Consignee contactperson length cannot be greater than 50 characters
45	Consignee name required in message body
46	Consignee name length cannot be greater than 50 characters
47	Consignee tel required in message body
48	Consignee tel length cannot be greater than 25 characters
49	Consignee addressline1 required in message body
50	Consignee addressline1 length cannot be greater than 50 characters
51	Consignee addressline2 required in message body
52	Consignee addressline2 length cannot be greater than 50 characters
53	Consignee addressline3 required in message body
54	Consignee addressline3 length cannot be greater than 50 characters
55	Consignee city required in message body

56	Consignee city length cannot be greater than 20 characters
57	Consignee state required in message body
58	Consignee state length cannot be greater than 20 characters
59	Consignee postcode required in message body
60	Consignee postcode length cannot be greater than 10 characters
61	Consignee countrycode required in message body
62	Consignee countrycode length cannot be greater than 2 characters
63	Consignee email address required in message body
64	Consignee email address length cannot be greater than 50 characters
65	Dimension information required for package type[SPX] in message
66	Dimension length required for package type[SPX] in message body
67	Dimension length must be decimal type
68	Dimension width required for package type[SPX] in message body
69	Dimension width must be decimal type
70	Dimension height required for package type[SPX] in message body
71	Dimension height must be decimal type
72	Dimension units required for package type[SPX] in message body
73	Dimension units length cannot be greater than 2 characters
74	Remarks length cannot be greater than 50 characters
75	MAWB code length cannot be greater than 20 characters
76	Flight code length cannot be greater than 20 characters
77	Flight date length cannot be greater than 10 characters
78	MAWB origin length cannot be greater than 10 characters
79	MAWB destination length cannot be greater than 10 characters
80	Label information required in message body
81	Generate label required in message body
82	Generate label is not valid
83	Label type is not valid
84	NumberPieces must be integer type
85	NumberPieces cannot be greater than 999
86	Description of shipping content length cannot be greater than 500 characters
87	Shipment quantity must be integer type
88	Shipment quantity cannot be greater than 999
89	Shipment unitprice must be decimal type
90	Customer reference length cannot be greater than 20 characters
91	Save shipment details return error
92	Error getting destination station for post code / package type
93	Error generating Label
94	Currency Code of COD cannot be greater than 3 characters
95	COD value must be decimal type
96	Request body missing in message body
97	Pickup date must be in YYYYMMDD format
98	Pickup date must greater than current date

99	Invalid business type
101	HAWB Type required in message body
102	Hawb type is not valid
103	HAWB value required in message body
104	Request shipment tracking return error
122	Refer error in details
123	Request more than maximum tracking allowed
FF	API error

1. Token Request

This will be the pre-requisite before accessing to City-Link API function. It will be consumed in the **HEADER** of each API call.

Web service URL:

Element Names	Data Type	Size	Description	Default Value	Man
Request Header					
CompanyCode	string	10	City-Link provided Entity Code assigned	CT	Y
AccountNumber	string	20	City-Link provided Account Number		Y
MeterNumber	string	20	Unique number assigned to CTL Account		Y
TransactionIdentifier	String	40	Unique identifier assigned by transaction initiator to a transaction. It is returned in the Reply to aid in matching transaction		Y

Sample successful response

```
{
  "txnId": "test",
  "returncode": "00",
  "returnmessage": "",
  "token": "87ed0cf4-c51d-4dd8-8571-1f22daf9f492",
  "requestDate": "29/09/2017",
  "expiryDate": "06/10/2017"
}
```

Sample unsuccessful response

```
{
  "txnId": "test",
  "returncode": "08",
  "returnmessage": "Account information not exists",
  "token": "",
  "requestDate": null,
  "expiryDate": null
}
{
  "txnId": "test",
  "returncode": "FF",
  "returnmessage": "Invalid meterNum given!",
  "token": "",
  "requestDate": null,
  "expiryDate": null
}
```

2. Web Service Operation: Shipment Request

City-Link Express shipment request services is for submission of shipment details and optionally request for shipping label or A4 Consignment note for printing purposes.

Web Service URL:

Request parameter

Element Names	Data Type	Size	Description	Default Value	Man
Request Header					
TransactionIdentifier	String	40	Unique identifier assigned by transaction initiator to a transaction. It is returned in the Reply to aid in matching transaction		Y
CompanyCode	String	10	City-Link provided Entity Code assigned	CT	Y
AccountNumber	String	20	City-Link provided Account Number		Y
MeterNumber	String	20	Unique number assigned to CTL Account		Y
Token	String	40	Token provided from token request.		
Request Body					
ServiceType	String	5	EXP, IPX	EXP	Y
PackageType	String	5	DOX - Document type Shipment SPX - Parcel Shipment		Y
Weight	Decimal	10.2	Gross weight of shipment		Y
WeightUnits	String	3	Weight Unit: KG	KG	Y
CurrencyCode	String	3	3 letter currency code of shipments value		Y
DeclaredValue	String	10.2	Value of shipment in the given currency.		
Shipper					
ContactPerson	String	50	Contact person from which shipment is originated.		Y
Name	String	50	Business name from which shipment is originated. If shipment is to a personal address, contact person's name should be filled in		Y
Tel	String	25	Phone number of contact or business from which shipment is originated		Y
AddressLine1	String	50	Address line 1 from which shipment is originated		Y
AddressLine2	String	50	Address line 2 from which shipment is originated		Y
AddressLine3	String	50	Address line 3 from which shipment is originated		N
City	String	20	City name from which shipment is originated.		Y
State	String	20	State from which shipment is originated. For US shipments, 2 letter code will be used		Y
PostCode	String	10	Postal/Zip code from which the shipment is originated		Y
CountryCode	String	2	Country from which shipment is originated, represented in ISO2A country code		Y
EmailAddress	String	40	Email address of recipient		N
Consignee					
ContactPerson	String	50	Contact person to which shipment is destined.		Y

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Name	String	50	Business name to which shipment is destined. If shipment is to a personal address, contact person's name should be filled in		Y
Tel	String	25	Phone number of contact or business to which shipment is destined		Y
AddressType	String	1	M : Multiple line S: Single line	M	N
AddressLine1	String	50	Address line 1 to which shipment is destined		Y
AddressLine2	String	50	Address line 2 to which shipment is destined		Y
AddressLine3	String	50	Address line 3 to which shipment is destined		N
City	String	20	City name to which shipment is destined.		Y
State	String	20	State to which shipment is destined.		Y
PostCode	String	10	Postal/Zip code to which the shipment is destined		Y
EmailAddress	String	40	Email address of recipient		N
CountryCode	String	2	Country to which shipment is destined, represented in ISO2A country code		Y
Dimensions					
Length	Decimal	10.2	Required if PKG_TYPE is SPX. Length of parcel		C
Width	Decimal	10.2	Required if PKG_TYPE is SPX. Width of parcel		C
Height	Decimal	10.2	Required if PKG_TYPE is SPX. Height of parcel		C
Units	String	2	Required if PKG_TYPE is SPX. Unit of measurements: Centimetres (cm)	CM	C
Remarks					
Remarks	String	50	Optional shipment Remarks		N
MAWB					
MAWBCode	String	20	Master Air Way Bill Code		N
FlightCode	String	20	Flight Code		N
FlightDateTime	Date	10	Flight date and time		N
Origin	String	10	Origin IATA Airport code		N
Destination	String	10	Destination IATA Airport code		N
Label					
GenerateLabel	Boolean		0-false - Label will not be generated	0	Y
Type	String	10	6X4, A4 - Required if Generate label is true	A4	C
MultiPiece					
NumberPieces	Integer	3	For shipments with multiple pieces. 1 piece = 1 box		N
ShipmentContent					
Description	String	500	Description of shipping content. Currently only allow 1 item		N
Quantity	Integer	3	Number of items for described shipment content		N
UnitPrice	Decimal	10.2	Value of each item for described shipment content		N
Reference					
XR	String	20	Customer Reference		N

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Logo	base64 binary		Leave as blank		N
COD					
CODCurrency	String	3	3 letter currency code of COD to be collected. E.g. MYR		N
CODValue	Decimal	10.2	Value of COD to be collected		N
ServiceInfo					
business_type	String	1	1- Pickup required		N
schedule_pickup_date	String	8	Pickup date in UTC+8 & YYYYMMDD format		N

Response Parameter

Element Names	Data Type	Size	Description
returncode	String	2	Indication of success or failure
returnmessage	string	1000	Message for failure request
txnId	string	40	Unique identifier assigned by transaction initiator to a transaction. It is returned in the Reply to aid in matching transaction. Requests to Replies.
TrackDetails			
hawbNo	String	20	City-Link HAWB No
Label	Base64binary		Consignment Note PDF encoded in Base64

Sample of Successful Response

```
{
  "returncode": "00",
  "returnmessage": "",
  "txnId": "js123",
  "hawbNo": "06039900998373",
  "label": "JVBERi0xLjcgCiXi48/TIAoxIDAqb2JqIAo8PCAKL1.....base64binary"
}
{
  "returncode": "00",
  "returnmessage": "",
  "txnId": "js123",
  "hawbNo": "06039900998374",
  "label": ""
}
```

Sample unsuccessful response

```
{
  "returncode": "07",
  "returnmessage": "VerifyAccount return error Invalid token given!",
  "txnId": null,
  "hawbNo": null,
  "label": ""
}
```


3. Web Service Operation: Tracking

This service allows customer to check shipment information and track status via HAWB or Customer Ref no.

Web Service URL:

Request Parameter

Element Names	Data Type	Size	Description	Default Value	Man
Request Header					
Token	String	40	Token provided from token request.		Y
CompanyCode	string	10	City-Link provided Entity Code assigned	CT	Y
AccountNumber	string	20	City-Link provided Account Number		Y
MeterNumber	string	20	Unique number assigned to CTL Account		Y
TransactionIdentifier	String	40	Unique identifier assigned by transaction initiator to a transaction. It is returned in the Reply to aid in matching transaction		Y
Request Body					
hawbtype	String	Boolean	True : request by HAWB, False : request by customer ref (xr1)		Y
hawbvalue	String	20	HAWB or Customer Ref No		Y

Response Parameter

Element Names	Data Type	Size	Description
returncode	String	2	Indication of success or failure
returnmessage	string	1000	Message for failure request
txnId	string	40	Unique identifier assigned by transaction initiator to a transaction. It is returned in the Reply to aid in matching transaction.
TrackDetails			
detDate	String	25	
detTime	String	6	
Location	String	100	Location of tracking event
status	String	100	Track event status description
cp_code	string	2	Tracking event code
recipient	string	50	
disposecode	string	3	Received by

Sample of Successful Response

```
{
  "txnId": "5588",
  "returncode": "00",
  "returnmessage": "",
  "trackHeader": [
    {
      "hawb": "860301239104002",
```

```

    "xr1": "XR001",
    "shipdate": "",
    "deldate": "",
    "destinationstation": "KUL",
    "consignee": "",
    "originstation": "SDM",
    "tos_mode": "PARCEL",
    "vw_height": "0",
    "vw_length": "0",
    "vw_width": "0",
    "t_weight": "0.62",
    "s_tel": "",
    "c_tex": "60176905427",
    "account_no": ""
  }
],
"trackDetails": [
  {
    "detDate": "29/09/2017",
    "detTime": "120459",
    "CP_Code": "PK",
    "status": "Shipment Collected",
    "location": "DATARAN CITY-LINK EXPRESS, MALAYSIA",
    "Recipient": "",
    "DisposeCode": ""
  }
]
}

```

Sample unsuccessful response

```

{
  "txnId": "123456",
  "returncode": "07",
  "returnmessage": "VerifyAccount return error"
}

```

4. Web Service Operation: Multiple Shipments Tracking

This service allows customer to check multiple shipments information and track status via list of HAWB or Customer Ref no.

Web Service URL:

Request Parameter

Element Names	Data Type	Size	Description	Default Value	Man
Request Header					
Token	String	40	Token provided from token request.		Y
CompanyCode	string	10	City-Link provided Entity Code assigned	CT	Y
AccountNumber	string	20	City-Link provided Account Number		Y
MeterNumber	string	20	Unique number assigned to CTL Account		Y
TransactionIdentifier	String	40	Unique identifier assigned by transaction initiator to a transaction. It is returned in the Reply to aid in matching transaction		Y
Request Body					
List of HAWB or Customer Ref No					
hawbtype	String	Boolean	True : request by HAWB, False : request by customer ref (xr1)		Y
hawbvalue	String	20	HAWB or Customer Ref No		Y

Response Parameter

Element Names	Data Type	Size	Description
returncode	String	2	Indication of success or failure
returnmessage	string	1000	Message for failure request
txnid	string	40	Unique identifier assigned by transaction initiator to a transaction. It is returned in the Reply to aid in matching transaction.
details			
hawbtype	String	Boolean	As per the request body
hawbvalue	String	20	As per the request body
returncode	String	2	Indication of success or failure
returnmessage	string	1000	Message for failure request
TrackDetails			
detDate	String	25	Date
detTime	String	6	Time
Location	String	100	Location of tracking event
Status	String	100	Track event status description
cp_code	string	2	Tracking event code
disposeCode	string	50	
recipient	string	3	Received by

Sample of Successful Response

```

{
  "txnId": "5588",
  "returncode": "00",
  "returnmessage": "",
  "details": [
    {
      "hawbtype": "True",
      "hawbvalue": "860301239104002",
      "trackHeader": [
        {
          "hawb": "860301239104002",
          "xr1": "XR001",
          "shipdate": "",
          "deldate": "",
          "destinationstation": "KUL",
          "consignee": "",
          "originstation": "SDM",
          "tos_mode": "PARCEL",
          "vw_height": "0",
          "vw_length": "0",
          "vw_width": "0",
          "t_weight": "0.62",
          "s_tel": "",
          "c_tex": "",
          "account_no": ""
        }
      ],
      "trackDetails": [
        {
          "detDate": "29/09/2017",
          "detTime": "120459",
          "CP_Code": "PK",
          "status": "Shipment Collected",
          "location": "DATARAN CITY-LINK EXPRESS, MALAYSIA",
          "Recipient": "",
          "DisposeCode": ""
        }
      ],
      "returncode": "00",
      "returnmessage": ""
    }
  ]
}

```

Sample unsuccessful response

```
{  
  "txnId": "123456",  
  "returncode": "07",  
  "returnmessage": "VerifyAccount return error",  
  "details": []  
}
```

CP_Code (Status code) Mapping

CP_Code	Old Description	New Description	Event
SR		Shipment information sent to City-Link	Received Request Shipment Data
DP		Arrived City-Link authorized drop-in-centre	Drop-off at City-Link authorized drop-in-centre
SC		Shipment picked up	Shipment Pickup by City-Link
GS	New	Arrived departure gateway	Arrived/Department airport
GA	New	Arrived gateway	Arrived/Department airport
GD	New	Departed gateway	Arrived/Department airport
GC	New	Clearance processing complete	Arrived/Department airport
PK	Shipment Collected	Arrived City-Link facility	Pickup from Shipper
OB	Shipment Bound for 'Destination'	Departed City-Link origin facility	Shipment forward
HD	Depart to 'Destination'	Departed sorting facility	Shipment forward handover
RV	Receive by 'Destination'	At City-Link local facility	Shipment received from origin
OD	With Courier 'Courier ID'	With City-Link delivery courier	Out for delivery
CR	Arrived at Import Hub	At City-Link local facility	Arrive at destination import hub
DL	Package Delivered	Delivered	Delivered
SP	'Shipment Delivery status', refer to Dispose Code below		Delivery status

Dispose Code Mapping

Dispose Code	Description
01	Receiver Not In
02	Receiver Not In - Will Collect At Station
03	Receiver Not In Address Given
04	Receiver's Location Vacant
05	Receiver's Location Closed
06	Receiver Refuse To Accept - Package Damaged
07	Receiver Refuse To Accept - Not Requested
08	Receiver Refuse To Pay Duty/Tax
09	Receiver's Address Invalid
10	Company/Person Unknown
15	Public Holiday
16	Location Inaccessible - Building Security
17	Location Inaccessible - Road Closed
18	Weather Related
19	Remote Area Delivery
20	Home Number Needed
21	Correct City/Town Needed
22	Correct Road Name Needed
23	Multiple Errors In Address Label
24	P.O. Box, Not Delivered
25	Receiver Request Delivery At Alternate Address
33	Damaged In Transit - Chemical/Liquid Spilled
35	Flight Cancelled
36	Flight Delay
37	Airline Off - Loaded Packages
38	Pending Verification
39	Origin - Improper Documents
40	Translation Of Documents Required
41	Pending Commercial Invoice
42	Shipper's Export Declaration Required
43	Inadequate Merchandise Description
44	Misdeclared Content
45	Misdeclared Value
46	Export License Required
47	Certificate Of Origin Required
48	Held For Inspection
49	Hazardous Material Prohibited Via Air
50	Gateway - Improper Documents
51	Gateway - Unaccepted International Export
52	Pending Duty Payment
54	Cleared Customs - Duty Not Specified
56	Import License Required

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57	Package Destined To Free Trade Zone
59	Need Phone Number
60	Unable To Contact Receiver At Primary Number
61	Unable To Contact Receiver At Alternate Number
62	Phone Call To Shipper No Answer
63	Phone Call To Receiver No Answer
64	Package Being Re-Packed
65	Package Requires Special Handling
66	Odd-Size Package, To Notify Shipper
67	Shipper Contacted For Further Arrangement
68	Receiver Contacted For Further Arrangement
69	COD Payment Not Ready
70	Receiver Refuse To Pay Duty/Tax, Not Delivered
75	Shipper Requested Later Delivery
76	Receiver Requested Later Delivery
77	Receiver Requested Own Collection
78	Arrangements Confirmed With Receiver
79	Address Corrected, Delivery Rescheduled
80	Message Left For Receiver
83	Package Being Re-Routed To Destination
84	Enroute To Delivery Agent
85	Shipper Instruction To Destroy
86	Shipper Instruction To Return
87	Authorization Received From The Shipper
90	Receiver Accepted Partial Delivery
91	Package Delivered
92	Delivered To 3rd Party
93	Returned To Shipper
94	Package Confirmed Missing
96	Destroyed As Per Shipper Advice
99	Package Seized By Customs/Authorities

Customer information

Customer Name:	
CompanyCode:	
Account:	
MeterNumber:	

Release Notes:

V1.5

- 1) Changed “Header” to Red colour and uppercase in page 4
- 2) Added Header Request Section in page 4
- 3) Changed “Account” in every header request to “AccountNumber” in Page 4, 5 and 8
- 4) Changed Web API URL link to https with domain name and new port number in Page 4, 5 and 8

V1.6

- 1) Remove 1 and 0 from Tracking -> Request Body -> hawbtype in Page 8

V1.7

- 1) Added new CP Code - SR and SC in Page 10
- 2) Added new Description for CP Code in Page 10
- 3) Added Page Numbers
- 4) Page alignment adjusted

V1.8

- 1) Added new CP Code - DP in Page 10

V1.9

- 1) Amend Successful Response, "originstation", "tos_mode", "vw_height", "vw_length", "vw_width", "t_weight", "s_tel", "c_tex", "account_no" – Page 10

V1.10

- 1) Page 8 - Corrected description for Element Names “Label”

V1.11

- 1) Page 4 – Add Return Code “122” for Multiple Shipments Tracking Service
- 2) Page 11 – Add Multiple Shipments Tracking Service

V1.12

- 1) Page 4 – Add Return Code “123” for Multiple Shipments Tracking Service

V1.13

- 1) Page 6 – Add Shipper EmailAddress
- 2) Page 7 – Add Consignee AddressType
- 3) Page 9 – Add detTime, recipient, disposecode in TrackDetail response parameter
- 4) Page 14 – Add new CP Code (GS, GA, GD, GC)

V1.14

- 1) Page 3 – Add Return Code 97, 98 & 99
- 2) Page 8 – Add ServiceInfo which contains business_type & schedule_pickup_date
- 3) Page 5, 6, 9 & 10 – Changed Web API domain name