

# Altametrics Timekeeping API Document

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## 1 Introduction

This Timekeeping API document contains details about how the data will be posted to Any Connector from various Time Clock applications or POS systems through the REST interface. From the Any Connector interface the data will be sent to Hubworks.

## 2 Authentication Process

There are two ways a site will be authorized. Either using the Hubworks Site ID or using Partner Site ID.

**Hubworks Site ID** – The unique id of the site which is generated by Hubworks.

**Partner Site ID** – The unique id of the site which is generated by the Partner.

### 2.1 Data authentication through Hubworks Site ID

In this mode, the URL will contain Hubworks Organization ID and Site ID and data will be posted to defined Sites. This can be done as mentioned below:

**URL:** `baseurl/partner/{partnerID}/{bucketID}/v1/{orgID}/{siteID}/{busiDate}`

**Header Data:** `orgApiKey, siteApiKey, vendorApiKey`

Parameter(s)	Description	Is Required	Type	Example Data
partnerID	ID of the partner provided by Altametrics	Yes	String	Micros, Aloha
bucketID	ID of the module whose data is being sent	Yes	String	Timekeeping
orgID	Hubworks Organization ID for which data is getting posted	Yes	String	xyz@org.com
siteID	Hubworks Site ID where data needs to be posted	Yes	String	1401WFulltron
busiDate	Date for which the data is being posted	Yes	String(YYYYMMDD)	20190516
orgApiKey	Organization API key for authentication	No	String	319d37011ef64ea99a238e

				480cecf58
siteApiKey	Site API key for authentication	No	String	e364d88f4afb 4d32ab9f873 58e3825ca
vendorApiKey	Vendor API key for authentication. This will be provided by Altametrics for each vendor	Yes	String	e364d88f4afb 4d32ab9f873 58e3898ka

**Sample URL :**

<https://api.anyconnector.com/Receiver/partner/abcPOS/timeKeeping/v1/xyz@org.com/1401WFulltron/20190516>

**2.2 Data authentication through partner Site ID**

In this mode, data will be posted using Partner Site ID that is a Unique ID for each Site at partner's end. URL format in this case would be:

**URL:** baseUrl/partner/{bucketID}/v1/{partnerCustID}/{partnerSiteID}/{busiDate}

**Header Data:** *vendorApiKey*

Parameter(s)	Description	Is Required	Type	Example
bucketID	ID of the module from which the data needs to be sent	Yes	String	Timekeeping
partnerSiteID	Partner site ID configured at the connections on AnyConnector	Yes	String	1401WFulltron
busiDate	Date for which the data is being posted.	Yes	String(YYYY MMDD)	20190516
partnerCustID	Unique ID of customer on AnyConnector	Yes	String	burgerKing
vendorApiKey	Vendor API key for authentication	Yes	String	e364d88f4afb 4d32ab9f873 58e3898ka

**Sample URL:**

<https://api.anyconnector.com/Receiver/partner/timeKeeping/v1/burgerKing/1401WFulltron/20190516>

### 3 Configuration and Transaction files

There will be two json files that will be posted to AnyConnector for each day. The first JSON file will be having data of Employees and Job Codes Lookups and the second JSON file will be containing Punch records.

#### 3.1 Implementation of Configuration API

Following table has the example data for Configuration files which is then implemented in our API format below the table:

##### 3.1.1 Sample JSON for Job Codes:

Case Description	Packet Data
Configuration example for Job Codes.	<p><b>Sample Data 1:-</b></p> <p><i>Job Code ID : 1</i></p> <p><i>Job Code Name: Supervisor</i></p> <p><i>Normal Pay Code: SNP</i></p> <p><i>Over Time Pay Code: SOP</i></p> <p><i>Double Time Pay Code: SDP</i></p> <p><b>Sample Data 2:-</b></p> <p><i>Job Code ID : 2</i></p> <p><i>Job Code Name: Cashier</i></p> <p><i>Normal Pay Code: CNP</i></p> <p><i>Over Time Pay Code: COP</i></p> <p><i>Double Time Pay Code: COP</i></p>

##### Sample Configuration JSON packet for Job Codes:

```
{
  "jobs": [{
    "id": "1",
    "name": "Supervisor",
    "norPayCode": "SNP",
    "OTPayCode": "SOP",
```

```
    "DTPayCode": "SDP"
  },
  {
    "id": "2",
    "name": "Cashier",
    "norPayCode": "CNP",
    "OTPayCode": "COP",
    "DTPayCode": "CDP"
  },
  {
    "id": "3",
    "name": "Manager",
    "norPayCode": "MNP",
    "OTPayCode": "MOP",
    "DTPayCode": "MDP"
  },
  {
    "id": "4",
    "name": "Training",
    "norPayCode": "TNP",
    "OTPayCode": "TOP",
    "DTPayCode": "TDP"
  },
  {
    "id": "5",
    "name": "BOH",
    "norPayCode": "UNP",
    "OTPayCode": "UOP",
    "DTPayCode": "UDP"
  },
  {
    "id": "6",
    "name": "Bartender",
    "norPayCode": "YNP",
    "OTPayCode": "YOP",
    "DTPayCode": "YDP"
  },
  {
    "id": "7",
    "name": "Delivery",
    "norPayCode": "XNP",
    "OTPayCode": "XOP",
    "DTPayCode": "XDP"
  }
```

```

    },
    {
      "id": "8",
      "name": "Barista",
      "norPayCode": "ZNP",
      "OTPayCode": "ZOP",
      "DTPayCode": "ZDP"
    }
  ],
}

```

Parameter(s)	Description	Is Required	Type	Example Data
jobs	Array of Jobs in Configuration file. If there is no Job Code, a blank array should be sent.		Array	
id	Job Code ID.	Yes	String	1
name	Job code name.	Yes	String	Supervisor
norPayCode	Normal Pay code ID.	No	String	SNP
OTPayCode	Over Time pay code ID.	No	String	SOP
DTPayCode	Double Time pay code ID.	No	String	SDP

### 3.1.2 Sample JSON for Employees:

Case Description	Packet Data
Configuration example for employees	<p><b>Sample data for an employee with multiple Job Codes:</b></p> <p><i>Employee ID : 103</i>  <i>First Name: Rick</i>  <i>Last Name: Thomas</i>  <i>Employee Wage: 200</i>  <i>Employee Job Code ID: 1,2</i>  <i>Employee Job Code: Supervisor,Cashier</i>  <i>Job Code Wage: 250,250</i></p>



**Sample data for an employee with single job code:***Employee ID : 101**First Name: John**Last Name: Doe**Employee Wage: 200**Employee Job Code ID: 1**Employee Job Code: Supervisor**Job Code Wage: 250***Sample data for an employee with without any job code:***Employee ID: 102**First Name: Mark**Last Name: Doe**Employee Wage: 200***Sample Configuration JSON packet:**

```
{
{
"employees": [
  {
    "id": "101",
    "firstName": "John",
    "lastName": "Doe",
    "wage": 200,
    "empJobs": [
      {
        "id": "1",
        "description": "Supervisor",
        "wage": 250
      }
    ]
  },
  {
    "id": "102",
```

```
"firstName": "Mark",
"lastName": "Doe",
"wage": 200,
"empJobs": [
  {
    "id": "2",
    "description": "Cashier",
    "wage": 250
  }
],
{
  "id": "103",
  "firstName": "Rick",
  "lastName": "Thomas",
  "wage": 200,
  "empJobs": [
    {
      "id": "3",
      "description": "Manager",
      "wage": 250
    }
  ]
},
{
  "id": "104",
  "firstName": "John",
  "lastName": "Thomas",
  "wage": 200,
  "empJobs": [
    {
      "id": "4",
      "description": "Training",
      "wage": 0
    }
  ]
},
{
  "id": "105",
  "firstName": "Adam",
  "lastName": "Thomas",
  "wage": 200,
  "empJobs": [
    {
      "id": "5",
      "description": "BOH",
```

```
        "wage": 100
      }
    },
    {
      "id": "106",
      "firstName": "Alex",
      "lastName": "Thomas",
      "wage": 200,
      "empJobs": [
        {
          "id": "6",
          "description": "Bartender",
          "wage": 0
        }
      ]
    },
    {
      "id": "107",
      "firstName": "Miley",
      "lastName": "Smith",
      "wage": 200,
      "empJobs": [
        {
          "id": "7",
          "description": "Delivery",
          "wage": 0
        }
      ]
    },
    {
      "id": "108",
      "firstName": "Jhone",
      "lastName": "Martin",
      "empJobs": [
        {
          "id": "3",
          "description": "Barista",
          "wage": 5
        }
      ]
    }
  ]
}
```

Parameter(s)	Description	Is Required	Type	Example Data
employees	Array of Employees in Configuration files. If there are no Employees, a blank array should be sent.		Array	
id	Employee ID	Yes	String	101
firstName	First Name of Employee	Yes	String	John
lastName	Last Name of Employee	No	String	Doe
wage	Pay rate of Employee. Value will be in cents	No	Integer	200
empJobs	Array of Employee Jobs in Configuration files.		Array	
id	Employee Job Code ID	Yes	String	1
description	Name of Job Code	No	String	Supervisor
wage	Pay rate of Job Code. Value will be in cents	No	Integer	250

## 3.2 Implementation of Punch and Break API

The request packet will be having the data according to the example table and user can post their punches in any of the two ways mentioned below:

- Including breaks in punch array
- Separate arrays for Punches and Breaks

### 3.2.1 Including Breaks in Punch array

Packets containing punch details will have the Break details in the same array of the Punch.

Following table has the data with example:

Case Description	Packet Data
Request body has closed punch record for an employee.	<b>Packet Data:-</b> <i>First Name: John</i>

*Last Name: Doe*  
*Employee ID : 101*  
*Job Code ID: 1*  
*Job Code Name: Supervisor*  
*Punch Start Time: 8:00am*  
*Punch End Time: 5:00pm*  
***Rest/Paid Break***  
*Break Start Time: 10:15am*  
*Break End Time: 10:45am*  
***Meal/Unpaid Break***  
*Break Start Time: 03:15pm*  
*Break End Time: 03:45pm*

**Sample JSON Request Body:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "endTime": 1020,
        "emplID": "101",
        "jobCodeID": "1",
        "jobCodeName": "Supervisor",
        "payRate": 200,
        "cashTips": 23,
        "cashSales": 45,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1001,
        "breaksArray": [
          {
```

```

    "startTime": 615,
    "endTime": 645,
    "brkType": 1,
    "brkUniqueID": 1201
  },
  {
    "startTime": 915,
    "endTime": 945,
    "brkType": 0,
    "brkUniqueID":1202
  }
]
}
}
}

```

Field description table:

Parameter(s)	Description	Is Required	Type	Example Data
origBucketID	Module ID from where the packets are getting sent.	Yes	String	Timekeeping
Version	Version of the API.	Yes	String	V1
punchesArray	Contain details of Punches.	Yes	array	
firstName	Employee first name	Yes	String	John
lastName	Employee last name	No	String	Doe
startTime	Punch start time.	Yes	Integer (dayOfMinute)	480
endTime	Punch end time. In case punch end time lies on next day then: endTime= endTime+ 1440	No	Integer (dayOfMinute)	1020
empID	Unique employee ID in Punch details.	Yes	String	101
jobCodeID	Job code ID for which employee's punch exists.	No	String	1

jobCodeName	Name of the Job code along with the punch array.	No	String	Supervisor
payRate	Pay rate of employee. Value will be in Cents.	No	Integer	200
cashTips	Tip amount in cash. Value will be in Cents.	No	Integer	23
cashSales	Total sales in cash by employee during Punch. Value will be in Cents.	No	Integer	45
ccTips	Tip amount with credit card. Value will be in Cents.	No	Integer	30
ccSales	Total sales by Credit card swipe during punch. Value will be in Cents.	No	Integer	25
uniquePunchID	Client's Unique Punch ID.	No	Integer	1001
breaksArray	Contains details of a break inside Punch array.	No	Array	
startTime	Break start time. In case Break start time lies on next day then: startTime= startTime + 1440	No	Integer (dayOfMinute)	615
endTime	Break end time. In case Break end time lies on next day then: endTime= endTime + 1440	No	Integer (dayOfMinute)	645
brkType	Type of break that is Meal Break or Rest Break, If Meal Break then value will be 0, If Rest Break then value will be 1	Yes	Boolean	1
brkUniqueID	Client's Unique break ID.	No	Integer	1201

### 3.2.2 Separate arrays for Punches and Breaks

When implementing this approach, Break details and Punch details will be sent separately. Following table has the data with example:

Case Description	Packet Data
Request body has Punch Record for Two employees. Both punches are closed.	<p><b>Packet Data:-</b></p> <p><i>First Name: John</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 101</i></p> <p><i>Job Code ID: 1</i></p> <p><i>Job Code Name: Supervisor</i></p> <p><i>Punch Start Time: 8:00am</i></p> <p><i>Punch End Time: 5:00pm</i></p> <p><b>Rest/Paid Break</b></p> <p><i>Break Start Time: 10:15am</i></p> <p><i>Break End Time: 10:45am</i></p> <p><b>Meal/Unpaid Break</b></p> <p><i>Break Start Time: 03:15pm</i></p> <p><i>Break End Time: 03:45pm</i></p>

#### Request Body:

```
{
  "origBucketID": "MicrosTimekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "endTime": 1020,
        "empID": "101",
        "jobCodeID": "1",
```



```

    "jobCodeName": "Supervisor",
    "payRate": 200,
    "cashTips": 23,
    "cashSales": 45,
    "ccTips": 30,
    "ccSales": 25,
    "uniquePunchID": 1001
  }
],
"breaksArray": [
  {
    "startTime": 615,
    "endTime": 645,
    "brkType": 1,
    "brkUniqueID": 1201,
    "emplID": "101"
  },
  {
    "startTime": 915,
    "endTime": 945,
    "brkType": 0,
    "brkUniqueID": 1202,
    "emplID": "101"
  }
]
}
}
}

```

Parameter(s)	Description	Is Required	Type	Example Data
origBucketID	Module ID from where the packets are getting sent.	Yes	String	Timekeeping
Version	Version of the API.	Yes	String	V1
punchesArray	Containing details of Punches.	Yes	array	
fristName	First Name of the employee	Yes	String	John
lastName	Last Name of the employee	No	String	Doe
startTime	Punch start time.	Yes	Integer	480

			(dayOfMinute)	
endTime	Punch end time. In case punch end time lies on next day then: endTime= endTime + 1440	No	Integer (dayOfMinute)	1020
empID	Unique employee ID in Punch details	Yes	String	2015720
jobCodeID	Job code ID for which employee's punch exists.	No	String	1
jobCodeName	Name of the Job code along with the punch array.	No	String	Supervisor
payRate	Pay rate of employee. Value will be in cents	No	Integer	200
cashTips	Tip amount in cash. Value will be in Cents.	No	Integer	23
cashSales	Total sales in cash by employee during Punch. Value will be in Cents.	No	Integer	45
ccTips	Tip amount with credit card. Value will be in Cents.	No	Integer	30
ccSales	Total sales by Credit card swipe during punch. Value will be in Cents.	No	Integer	25
uniquePunchID	Client's Unique Punch ID.	No	Integer	1001
breaksArray	Contains details of a break inside Punch array.	No	Array	
startTime	Break start time. In case Break start time lies on next day then: startTime= startTime + 1440	No	Integer (dayOfMinute)	615
endTime	Break end time. In case Break end time lies on next day then:	No	Integer (dayOfMinute)	645

	endTime= endTime + 1440			
brkType	Type of break that is Meal Break or Rest Break, If Meal Break then value will be 0, If Rest Break then value will be 1	Yes	Boolean	1
brkUniqueID	Client's Unique break ID.	No	Integer	1201
empID	Unique employee ID in Break array.	Yes	String	101

## 4 Sample Request Packets for different test cases

Request Body for various cases that needs to be handled is mentioned below in the table:

### 4.1 Sample JSON body when posting Closed Punches

Case Description	Example
Request body has Punch Record for Two employees. Both punches are closed.	<p><b>Packet Data 1 -</b></p> <p>First Name: John</p> <p>Last Name: Doe</p> <p>Employee ID : 101</p> <p>Punch Start Time: 8:00am</p> <p>Punch End Time: 5:00pm</p> <p><b>Rest/Paid Break</b></p> <p>Break Start Time: 10:15am</p> <p>Break End Time: 10:45am</p> <p><b>Meal/Unpaid Break</b></p> <p>Break Start Time: 03:15pm</p> <p>Break End Time: 03:45pm</p>

**Packet Data 2 -**

First Name: MARK

Last Name: Doe

Employee ID : 102

Punch Start Time: 8:00am

Punch End Time: 5:00pm

**Rest/Paid Break***Break Start Time: 10:15am**Break End Time: 10:45am***Meal/Unpaid Break***Break Start Time: 03:15pm**Break End Time: 03:45pm***Request Body Including Breaks in Punches array:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "endTime": 1020,
        "emplID": "101",
        "payRate": 200,
        "cashTips": 23,
        "cashSales": 45,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1001,
        "breaksArray": [
          {
            "startTime": 615,
            "endTime": 645,
```

```
        "brkType": 1,
        "brkUniqueID": 1201
      },
      {
        "startTime": 915,
        "endTime": 945,
        "brkType": 0,
        "brkUniqueID": 1204
      }
    ]
  },
  {
    "firstName": "Mark",
    "lastName": "Doe",
    "startTime": 540,
    "endTime": 1020,
    "emplID": "102",
    "payRate": 200,
    "cashTips": 20,
    "cashSales": 40,
    "ccTips": 30,
    "ccSales": 25,
    "uniquePunchID": 1002,
    "breaksArray": [
      {
        "startTime": 615,
        "endTime": 645,
        "brkType": 1,
        "brkUniqueID": 1203
      },
      {
        "startTime": 915,
        "endTime": 945,
        "brkType": 0,
        "brkUniqueID": 1205
      }
    ]
  }
]
}
```

**Request body with Separate arrays for Punches and Breaks:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "endTime": 1020,
        "emplID": "101",
        "payRate": 200,
        "cashTips": 23,
        "cashSales": 45,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1001
      },
      {
        "firstName": "Mark",
        "lastName": "Doe",
        "startTime": 540,
        "endTime": 1020,
        "emplID": "102",
        "payRate": 200,
        "cashTips": 20,
        "cashSales": 40,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1002
      }
    ],
    "breaksArray": [
      {
        "startTime": 615,
        "endTime": 645,
        "brkType": 1,
        "brkUniqueID": 1201,
        "emplID": "102"
      }
    ]
  }
}
```

```
    },
    {
      "startTime": 915,
      "endTime": 945,
      "brkType": 0,
      "brkUniqueID": 1204,
      "emplID": "102"
    },
    {
      "startTime": 615,
      "endTime": 645,
      "brkType": 1,
      "brkUniqueID": 1203,
      "emplID": "102"
    },
    {
      "startTime": 915,
      "endTime": 945,
      "brkType": 0,
      "brkUniqueID": 1205,
      "emplID": "102"
    }
  ]
}
```

## 4.2 Sample JSON body while posting data for an employee having multiple punches on a single day

Case Description	Example
Request body has multiple Punch Records for an employee.	<p><b>Packet Data 1 -</b></p> <p><i>First Name: John</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 101</i></p> <p><i>Punch Start Time: 8:00am</i></p> <p><i>Punch End Time: 12:00pm</i></p> <p><b>Rest/Paid Break</b></p> <p><i>Break Start Time: 10:15am</i></p> <p><i>Break End Time: 10:45am</i></p> <p><b>Packet Data 2 -</b></p> <p><i>First Name: John</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 101</i></p> <p><i>Punch Start Time : 06:00pm</i></p> <p><i>Punch End Time : 11:00pm</i></p> <p><b>Meal/Unpaid Break</b></p> <p><i>Break Start Time : 08:00pm</i></p> <p><i>Break End Time : 08:30pm</i></p>

### Request Body Including Breaks in Punches array:

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
```



```
"punchesArray": [  
  {  
    "firstName": "John",  
    "lastName": "Doe",  
    "startTime": 480,  
    "endTime": 720,  
    "emplID": "101",  
    "payRate": 200,  
    "cashTips": 23,  
    "cashSales": 45,  
    "ccTips": 30,  
    "ccSales": 25,  
    "uniquePunchID": 1001,  
    "breaksArray": [  
      {  
        "startTime": 560,  
        "endTime": 600,  
        "brkType": 1,  
        "brkUniqueID": 1201  
      }  
    ]  
  },  
  {  
    "firstName": "John",  
    "lastName": "Doe",  
    "startTime": 1080,  
    "endTime": 1380,  
    "emplID": "101",  
    "payRate": 200,  
    "cashTips": 20,  
    "cashSales": 40,  
    "ccTips": 30,  
    "ccSales": 25,  
    "uniquePunchID": 1002,  
    "breaksArray": [  
      {  
        "startTime": 1200,  
        "endTime": 1230,  
        "brkType": 0,  
        "brkUniqueID": 1203  
      }  
    ]  
  }  
]
```

```
    }  
  ]  
}  
}
```

**Request body with Separate arrays for Punches and Breaks:**

```
{  
  "origBucketID": "Timekeeping",  
  "version": "v1",  
  "data": {  
    "punchesArray": [  
      {  
        "firstName": "John",  
        "lastName": "Doe",  
        "startTime": 480,  
        "endTime": 720,  
        "emplID": "101",  
        "payRate": 200,  
        "cashTips": 23,  
        "cashSales": 45,  
        "ccTips": 30,  
        "ccSales": 25,  
        "uniquePunchID": 1001  
      },  
      {  
        "firstName": "John",  
        "lastName": "Doe",  
        "startTime": 1080,  
        "endTime": 1380,  
        "emplID": "101",  
        "payRate": 200,  
        "cashTips": 20,  
        "cashSales": 40,  
        "ccTips": 30,  
        "ccSales": 25,  
        "uniquePunchID": 1002  
      }  
    ],  
    "breaksArray": [  
      {
```

```
    "startTime": 560,  
    "endTime": 600,  
    "brkType": 1,  
    "brkUniqueID": 1201,  
    "emplID": "101"  
  },  
  {  
    "startTime": 1200,  
    "endTime": 1230,  
    "brkType": 0,  
    "brkUniqueID": 1203,  
    "emplID": "101"  
  }  
]  
}  
}
```

### 4.3 Sample JSON body while posting Open Punch data to Hubworks

Case Description	Example
Request body has open punches for two employees.	<p><b>Packet Data 1 -</b></p> <p><i>First Name: John</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 101</i></p> <p><i>Punch Start Time: 8:00am</i></p> <p><i>Punch End Time: NA</i></p> <p><b>Rest/Paid Break</b></p> <p><i>Break Start Time: 10:15am</i></p> <p><i>Break End Time: 10:45am</i></p> <p><b>Meal/Unpaid Break</b></p> <p><i>Break Start Time: 03:15pm</i></p> <p><i>Break End Time: 03:45pm</i></p> <p><b>Packet Data 2 -</b></p> <p><i>First Name: Mark</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 102</i></p> <p><i>Punch Start Time: 8:00am</i></p> <p><i>Punch End Time: NA</i></p> <p><b>Rest/Paid Break</b></p> <p><i>Break Start Time: 10:15am</i></p> <p><i>Break End Time: 10:45am</i></p> <p><b>Meal/Unpaid Break</b></p> <p><i>Break Start Time: 03:15pm</i></p> <p><i>Break End Time: 03:45pm</i></p>

**Request Body including Breaks in Punches array:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "empID": "101",
        "payRate": 200,
        "cashTips": 23,
        "cashSales": 45,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1001,
        "breaksArray": [
          {
            "startTime": 615,
            "endTime": 645,
            "brkType": 1,
            "brkUniqueID": 1201
          },
          {
            "startTime": 915,
            "endTime": 945,
            "brkType": 0,
            "brkUniqueID": 1202
          }
        ]
      }
    ],
    {
      "firstName": "Mark",
      "lastName": "Doe",
      "startTime": 540,
      "empID": "102",
      "payRate": 200,
      "cashTips": 20,
      "cashSales": 40,
      "ccTips": 30,
    }
  }
}
```

```

    "ccSales": 25,
    "uniquePunchID": 1002,
    "breaksArray": [
      {
        "startTime": 615,
        "endTime": 645,
        "brkType": 1,
        "brkUniqueID": 1203
      },
      {
        "startTime": 915,
        "endTime": 945,
        "brkType": 0,
        "brkUniqueID": 1204
      }
    ]
  }
]
}
}

```

### Request body with Separate arrays for Punches and Breaks:

```

{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "emplID": "101",
        "payRate": 200,
        "cashTips": 23,
        "cashSales": 45,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1001
      },
      {
        "firstName": "Mark",

```

```
    "lastName": "Doe",
    "startTime": 540,
    "emplID": "102",
    "payRate": 200,
    "cashTips": 20,
    "cashSales": 40,
    "ccTips": 30,
    "ccSales": 25,
    "uniquePunchID": 1002
  }
],
"breaksArray": [
  {
    "startTime": 615,
    "endTime": 645,
    "brkType": 1,
    "brkUniqueID": 1201,
    "emplID": "101"
  },
  {
    "startTime": 915,
    "endTime": 945,
    "brkType": 0,
    "brkUniqueID": 1202,
    "emplID": "101"
  },
  {
    "startTime": 615,
    "endTime": 645,
    "brkType": 1,
    "brkUniqueID": 1203,
    "emplID": "102"
  },
  {
    "startTime": 915,
    "endTime": 945,
    "brkType": 0,
    "brkUniqueID": 1204,
    "emplID": "102"
  }
]
}
```

#### 4.4 Sample JSON body while posting Open Punch and Open Break data to Hubworks

Case Description	Example
<p>Request body has Open Punches and Open breaks. In first data set, Meal break end time is null and in second one Rest break end time is null.</p>	<p><b>Packet Data 1 -</b></p> <p><i>First Name: John</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 101</i></p> <p><i>Punch Start Time: 8:00am</i></p> <p><i>Punch End Time: NA</i></p> <p><b>Rest/Paid Break</b></p> <p><i>Break Start Time: 10:15am</i></p> <p><i>Break End Time: 10:45am</i></p> <p><b>Meal/Unpaid Break</b></p> <p><i>Break Start Time: 03:15pm</i></p> <p><i>Break End Time: NA</i></p> <p><b>Packet Data 2 -</b></p> <p><i>First Name: James</i></p> <p><i>Last Name: Smith</i></p> <p><i>Employee ID : 102</i></p> <p><i>Punch Start Time: 8:00am</i></p> <p><i>Punch End Time: 5:00pm</i></p> <p><b>Rest/Paid Break</b></p> <p><i>Break Start Time: 10:15am</i></p> <p><i>Break End Time: NA</i></p>



**Request Body Including Breaks in Punches array:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "emplID": "101",
        "payRate": 200,
        "cashTips": 23,
        "cashSales": 45,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1001,
        "breaksArray": [
          {
            "startTime": 615,
            "endTime": 645,
            "brkType": 1,
            "brkUniqueID": 1201
          },
          {
            "startTime": 915,
            "brkType": 0,
            "brkUniqueID": 1202
          }
        ]
      }
    ],
    {
      "firstName": "MArk",
      "lastName": "Doe",
      "startTime": 480,
      "emplID": "102",
      "payRate": 200,
      "cashTips": 20,
      "cashSales": 40,
      "ccTips": 30,
    }
  }
}
```

```
    "ccSales": 25,
    "uniquePunchID": 1002,
    "breaksArray": [
      {
        "startTime": 615,
        "brkType": 1,
        "brkUniqueID": 1203
      }
    ]
  }
]
}
```

**Request body with Separate arrays for Punches and Breaks:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "emplID": "101",
        "payRate": 200,
        "cashTips": 23,
        "cashSales": 45,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1001
      },
      {
        "firstName": "Mark",
        "lastName": "Doe",
        "startTime": 480,
        "emplID": "102",
        "payRate": 200,
        "cashTips": 20,
        "cashSales": 40,
        "ccTips": 30,
        "ccSales": 25,
      }
    ]
  }
}
```

```
    "uniquePunchID": 1002
  }
],
"breaksArray": [
  {
    "startTime": 615,
    "endTime": 645,
    "brkType": 1,
    "brkUniqueID": 1201,
    "empID": "101"
  },
  {
    "startTime": 915,
    "brkType": 0,
    "brkUniqueID": 1202,
    "empID": "102"
  },
  {
    "startTime": 615,
    "brkType": 1,
    "brkUniqueID": 1203,
    "empID": "102"
  }
]
}
```

## 4.5 Sample JSON body while posting Punch record having Job Code details

Case Description	Example
Request body has Job Code along with Punch details.	<p><b>Packet Data 1 -</b></p> <p><i>First Name: John</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 101</i></p> <p><i>Job Code ID : 1</i></p> <p><i>Job Code Name: Supervisor</i></p> <p><i>Punch Start Time: 8:00am</i></p> <p><i>Punch End Time: 5:00pm</i></p> <p><i>Rest Break</i></p> <p><i>Break Start Time: 10:15am</i></p> <p><i>Break End Time: 10:45am</i></p> <p><i>Meal Break</i></p> <p><i>Break Start Time: 03:15pm</i></p> <p><i>Break End Time: 03:45pm</i></p> <p><b>Packet Data 2 -</b></p> <p><i>First Name: Mark</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 102</i></p> <p><i>Job Code ID : 2</i></p> <p><i>Job Code Name: Cashier</i></p> <p><i>Punch Start Time: 8:00am</i></p>

*Punch End Time: 5:00pm*

***Rest/Paid Break***

*Break Start Time: 10:15am*

*Break End Time: 10:45am*

***Meal/Unpaid Break***

*Break Start Time: 03:15pm*

*Break End Time: 03:45pm*

**Request Body Including Breaks in Punches array:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "endTime": 1020,
        "emplID": "101",
        "jobCodeID": "1023",
        "jobCodeName": "Supervisor",
        "payRate": 200,
        "cashTips": 23,
        "cashSales": 45,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1001,
        "breaksArray": [
          {
            "startTime": 615,
            "endTime": 645,
            "brkType": 1,
            "brkUniqueID": 1201
          },
          {
            "startTime": 915,
            "endTime": 945,
```

```
        "brkType": 0,
        "brkUniqueID":1202
    }
]
},
{
    "firstName": "Mark",
    "lastName": "Doe",
    "startTime": 480,
    "endTime": 1020,
    "emplID": "102",
    "jobCodeID": "2",
    "jobCodeName": "Cashier",
    "payRate": 200,
    "cashTips": 20,
    "cashSales": 40,
    "ccTips": 30,
    "ccSales": 25,
    "uniquePunchID": 1002,
    "breaksArray": [
        {
            "startTime": 615,
            "endTime": 645,
            "brkType": 1,
            "brkUniqueID": 1203
        },
        {
            "startTime": 915,
            "endTime": 945,
            "brkType": 0,
            "brkUniqueID": 1204
        }
    ]
}
]
}
}
```

**Request body with Separate arrays for Punches and Breaks:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
```

```
"data": {
  "punchesArray": [
    {
      "firstName": "John",
      "lastName": "Doe",
      "startTime": 480,
      "endTime": 1020,
      "emplID": "101",
      "jobCodeID": "1023",
      "jobCodeName": "Supervisor",
      "payRate": 200,
      "cashTips": 23,
      "cashSales": 45,
      "ccTips": 30,
      "ccSales": 25,
      "uniquePunchID": 1001
    },
    {
      "firstName": "Mark",
      "lastName": "Doe",
      "startTime": 480,
      "endTime": 1020,
      "emplID": "102",
      "jobCodeID": "2",
      "jobCodeName": "Cashier",
      "payRate": 200,
      "cashTips": 20,
      "cashSales": 40,
      "ccTips": 30,
      "ccSales": 25,
      "uniquePunchID": 1002
    }
  ],
  "breaksArray": [
    {
      "startTime": 615,
      "endTime": 645,
      "brkType": 1,
      "brkUniqueID": 1201,
      "emplID": "101"
    },
    {

```

```
    "startTime": 915,  
    "endTime": 945,  
    "brkType": 0,  
    "brkUniqueID":1202,  
    "emplID":"101"  
  },  
  {  
    "startTime": 615,  
    "endTime": 645,  
    "brkType": 1,  
    "brkUniqueID": 1203,  
    "emplID": "102"  
  },  
  {  
    "startTime": 915,  
    "endTime": 945,  
    "brkType": 0,  
    "brkUniqueID": 1204,  
    "emplID":"102"  
  }  
]  
}  
}
```



## 4.6 Sample JSON body while posting Punches with multiple Job Codes for an employee

Case Description	Example
<p>Request body has Punch details of an employee who changed Job code after taking a break. In this case two records for an employee should be in packet, one is having Punch end time same as the Job Code change time and a new punch will be recorded with Start time same as Job code change time.</p>	<p><b>Packet Data 1 -</b></p> <p><i>First Name: John</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 101</i></p> <p><i>Job Code ID : 1</i></p> <p>Job Code Name: Supervisor</p> <p><i>Punch Start Time: 8:00am</i></p> <p><i>Punch End Time: 02:00pm</i></p> <p><b>Rest/Paid Break</b></p> <p><i>Break Start Time: 09:15am</i></p> <p><i>Break End Time: 09:30am</i></p> <p><b>Meal/Unpaid Break</b></p> <p><i>Break Start Time: 01:45pm</i></p> <p><i>Break End Time: 02:00pm</i></p> <p><b>Packet Data 2 -</b></p> <p><i>First Name: Mark</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 102</i></p> <p><i>Job Code ID : 2</i></p> <p>Job Code Name: Cashier</p> <p><i>Punch Start Time: 2:00pm</i></p> <p><i>Punch End Time: 5:00pm</i></p>

**Rest/Paid Break***Break Start Time: 04:00pm**Break End Time: 04:15pm***Request Body Including Breaks in Punches array:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "endTime": 840,
        "emplID": "101",
        "jobCodeID": "1",
        "jobCodeName": "Supervisor",
        "payRate": 200,
        "cashTips": 23,
        "cashSales": 45,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1001,
        "breaksArray": [
          {
            "startTime": 555,
            "endTime": 570,
            "brkType": 1,
            "brkUniqueID": 1201
          },
          {
            "startTime": 825,
            "endTime": 840,
            "brkType": 0,
            "brkUniqueID": 1202
          }
        ]
      }
    ]
  },
  {

```

```
"firstName": "John",
"lastName": "Doe",
"startTime": 840,
"endTime": 1020,
"emplID": "101",
"jobCodeID": "2",
"jobCodeName": "Cashier",
"payRate": 200,
"cashTips": 20,
"cashSales": 40,
"ccTips": 30,
"ccSales": 25,
"uniquePunchID": 1002,
"breaksArray": [
  {
    "startTime": 960,
    "endTime": 975,
    "brkType": 1,
    "brkUniqueID": 1203
  }
]
}
]
}
}
```

### Request body with Separate arrays for Punches and Breaks:

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 480,
        "endTime": 840,
        "emplID": "101",
        "jobCodeID": "1",
        "jobCodeName": "Supervisor",
        "payRate": 200,

```

```
"cashTips": 23,
"cashSales": 45,
"ccTips": 30,
"ccSales": 25,
"uniquePunchID": 1001
},
{
  "firstName": "John",
  "lastName": "Doe",
  "startTime": 840,
  "endTime": 1020,
  "emplID": "101",
  "jobCodeID": "2",
  "jobCodeName": "Cashier",
  "payRate": 200,
  "cashTips": 20,
  "cashSales": 40,
  "ccTips": 30,
  "ccSales": 25,
  "uniquePunchID": 1002
}
],
"breaksArray": [
  {
    "startTime": 555,
    "endTime": 570,
    "brkType": 1,
    "brkUniqueID": 1201,
    "emplID": "101"
  },
  {
    "startTime": 825,
    "endTime": 840,
    "brkType": 0,
    "brkUniqueID": 1202,
    "emplID": "101"
  },
  {
    "startTime": 960,
    "endTime": 975,
    "brkType": 1,
    "brkUniqueID": 1203,
    "emplID": "101"
  }
]
```

```

    }
  ]
}

```

#### 4.7 Sample JSON body while posting data of an Overnight punch

Case Description	Example
<p>Request body has details of an overnight punch.</p> <p>Overnight Punch is closed For Employee ID 2015720. And for Employee ID 2015721 overnight punch is still open and has an open break as well.</p>	<p><b>Packet Data 1 -</b></p> <p><i>First Name: John</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 101</i></p> <p><i>Punch Start Time: 08:00pm</i></p> <p><i>Punch End Time: 04:00am +1 Day</i></p> <p><b>Rest/Paid Break</b></p> <p><i>Break Start Time: 09:15pm</i></p> <p><i>Break End Time: 09:30pm</i></p> <p><b>Meal/Unpaid Break</b></p> <p><i>Break Start Time: 01:45am +1 Day</i></p> <p><i>Break End Time: 02:00am +1 Day</i></p> <p><b>Packet Data 2-</b></p> <p><i>First Name: Mark</i></p> <p><i>Last Name: Doe</i></p> <p><i>Employee ID : 102</i></p> <p><i>Punch Start Time: 10:00pm</i></p> <p><i>Punch End Time: NA</i></p> <p><b>Rest/Paid Break</b></p>

*Break Start Time: 09:15pm*

*Break End Time: NA*

**Request Body Including Breaks in Punches array:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 1200,
        "endTime": 1680,
        "emplID": "101",
        "payRate": 200,
        "cashTips": 23,
        "cashSales": 45,
        "ccTips": 30,
        "ccSales": 25,
        "uniquePunchID": 1001,
        "breaksArray": [
          {
            "startTime": 1275,
            "endTime": 1290,
            "brkType": 1,
            "brkUniqueID": 1201
          },
          {
            "startTime": 1545,
            "endTime": 1560,
            "brkType": 0,

```

```
        "brkUniqueID": 1204
      }
    ]
  },
  {
    "firstName": "Mark",
    "lastName": "Doe",
    "startTime": 1320,
    "emplID": "102",
    "payRate": 200,
    "cashTips": 20,
    "cashSales": 40,
    "ccTips": 30,
    "ccSales": 25,
    "uniquePunchID": 1002,
    "breaksArray": [
      {
        "startTime": 1470,
        "brkType": 1,
        "brkUniqueID": 1203
      }
    ]
  }
]
}
```

**Request body with Separate arrays for Punches and Breaks:**

```
{
  "origBucketID": "Timekeeping",
  "version": "v1",
  "data": {
    "punchesArray": [
      {
        "firstName": "John",
        "lastName": "Doe",
        "startTime": 1200,
        "endTime": 1680,
        "emplID": "101",
        "payRate": 200,
        "cashTips": 23,
```

```
    "cashSales": 45,
    "ccTips": 30,
    "ccSales": 25,
    "uniquePunchID": 1001
  },
  {
    "firstName": "Mark",
    "lastName": "Doe",
    "startTime": 1320,
    "empID": "102",
    "payRate": 200,
    "cashTips": 20,
    "cashSales": 40,
    "ccTips": 30,
    "ccSales": 25,
    "uniquePunchID": 1002
  }
],
"breaksArray": [
  {
    "startTime": 1275,
    "endTime": 1290,
    "brkType": 1,
    "brkUniqueID": 1201,
    "empID": "101"
  },
  {
    "startTime": 1545,
    "endTime": 1560,
    "brkType": 0,
    "brkUniqueID": 1204,
    "empID": "101"
  },
  {
    "startTime": 1470,
    "brkType": 1,
    "brkUniqueID": 1203,
    "empID": "102"
  }
]
}
```



## 5 Test cases for request packets

Following are the cases that should be handled at the developer's end while posting data to AnyConnector application. Following are some cases for both Configuration and Timekeeping JSONs.

### 5.1 Cases for Configuration JSON

#### 5.1.1 Cases for Job Code Array

- If Job Code ID and Job Code Name is not present in the request packet then it should not be sent to Hubworks.

#### 5.1.2 Cases for Employee Array

- If Employee ID and First Name of the Employee is not present in the request packet then it should not be sent to Hubworks.

### 5.2 Cases for Configuration JSON

#### 5.2.1 Cases for Punch Array

Request packet should not be sent to AnyConnector in the following cases:

- If origBucketID is not present.
- If Punch Start Time is blank.
- If Punch Start and End Time is same.
- If Punch Start Time is after Punch End Time.
- If Punch Start Time is blank but Break Start and End Time is present.
- If Punch Start Time, Break Start and End Time is same.
- If Punch overlap.

#### 5.2.2 Cases for Break Array

Request packet should not be sent to AnyConnector in the following cases:

- If Break Start Time is before Punch Start Time or If Punch Start Time is after Break Start Time.
- If Break Start Time is after Punch End Time.
- If Break End Time is before Punch Start Time.
- If Break End Time is after Punch End Time.
- If break Start and End Time is same.
- If Break overlap.
- If Break Type is blank.
- If Punch Start & End Time and Break Start & End Time is in future.