



## Database Synchronization API

The following is the API for data synchronization between Aljex Software and Aljex Software's customer.

### 1. API Overview

The synchronization service is implemented in 2 parts: a morning export and a live sync of individual data records as they are updated in Aljex.

**Morning Export:** Early in the morning an export of the customer's data in Aljex is sent via FTP. There is one .csv or .txt file generated per Aljex file. The files are sent early in the day to ensure the customer has a refresh of the previous day's data. The customer will provide Aljex with a hostname, username, password, and directory to upload the files.

Below are the files available to be sent:

- Employees
- Customers
- Carriers
- Loads\*\*\*
- Payments (Accounts Payable)
- Invoicing\*\*\*
- Payments Received (Accounts Receivable)
- Debits
- Credits
- Salesreps
- Quotes
- Payable
- New Purchases

**\*\*\*Note: all records for each Aljex file are sent with the exception of loads and invoicing.**

Loads – all active loads, plus those created, updated, or with a ship date starting 3 days in the past

Invoicing – records created, updated, or with a ship date/invoice date starting 3 days in the past

**Live Sync:** Throughout the day as updates are made in Aljex, an HTTP post routine sends the changes to the customer's database server. All data changes are sent real-time from Aljex to the customer using a standard HTTP post routine. The same files for the morning sync are also available for the live sync.

When signing up for the Aljex data sync, please specify whether you want the morning export, live sync, or both. Please also specify which files you want sent, if not all.

## 2. HTTP URL (Live Sync)

All synchronization requests will be sent to a URL (hostname) provided to Aljex by the customer.

To prevent unauthorized requests from being sent to the customer's database, access should be restricted to Aljex by providing a username and password. If needed, to restrict access even further, Aljex can provide the IP address the live data will be coming from.

## 3. Parameter Encoding (Live Sync)

All data sent in the POST message body will be in the *application/x-www-form-urlencoded* format as described in the HTML 4.01 Specification W3C Recommendation:

<http://www.w3.org/TR/html4/interact/forms.html#h-17.13.4.1>

## 4. Parameters (Live Sync)

Each POST routine will contain the data for a single record. The synchronization service will not provide a mechanism for creating or updating multiple records with a single request. There are two constant parameters for every synchronization request:

Name	Description
web_sync_table_name	The name of the data table
web_sync_action	The action to be performed on the record

Note: the **web\_sync\_action** will be create, update, or delete.

In addition to the two constant parameters, each request will contain a unique parameter for each field of the record to be synced. The parameter names will match the names of the fields in the **API Name** column of the [Aljex Software Database Synchronization Tables](#).

## 5. Live Sync Example

The below example would create a new record in the customer's database for the table named *employees* with fields *id, name, email, team, type, passwd, phone, and status*.

**These parameters would be sent to create a new employee record:**

```
web_sync_table_name=employees
web_sync_action=create
id=demo
name=Bill Smith
email=bill.smith@aljex.com
team=4
```

type=employee  
passwd=password  
phone=7323578700  
status=good

**Modifying the phone number and email address of the record could be done using the following parameters:**

web\_sync\_table\_name=employees  
web\_sync\_action=update  
id=demo  
name=Bill Smith  
email=bsmith@aljex.com  
team=4  
type=employee  
passwd=password  
phone=7323578777  
status=good