



# Technology: **Underpinning Growth & Compliance**

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Next-gen infrastructure that supports new solutions, greater agility, and AI

 2023 Asure Reseller Partner Conference

## Collaborative Synergy R&D - Innovation Teams

Product & Compliance – Christian Franklin,  
Tamer Gendi & A.J.Wasielewski

Information Security – Joshua Gohman

Integration – Ashrit Bista

Development – Andrew Quartey, John Canada &  
Michel Thiran

UI/UX – Pam Mercier

Information Technology – Rob Mount

Quality Assurance – Mike Peterson

Automation/RPA/Workato/PM – Jermani Martin

Artificial Intelligence – Asure Team

## My Goals this week

Share

Listen

Align

Establish Relationships



# Our Journey | Gradual and well-thought-out transition



- Pandemic-driven constantly changing IRS & State Regulations
- Maintenance & Compliance
- Enhancements

2020 - 2021

- Infrastructure**
- RPA/Workato - Automating Mundane Tasks
  - Asure Identity Design/build
  - Asure Tax Portal
  - ERTC Support - End to End Automation
  - Treasury - Centralized Money Movement
  - Market Place - Data Store/Equifax
  - E-signature Service
  - Nacha Tokenization Service

2021 - 2022

- < 2020
- Maintenance/ Compliance
  - Enhancements

- Mid Market**
- Dashboard Enhancements
  - Migration to Asure Tax

- EVO**
- 64-bit Back End Released
  - Migration to Asure Tax

Q1 - Q2 2023

- AWS Partnership & Modernization
- MM Employee Onboarding
- AHR Mega Menu
- MM E-signature
- EVO 64-bit Client-Side Stability
- Employee Portal - Design/Architecture

**Q3 2023 and 2024**

WHAT'S NEXT?

# Our Journey | Payroll/Tax/Tax Credits Re-Imagined



## Employee Portal Development

- API - Gross to Net Calc Engine
- Payroll/Tax Engine
- Asure Identity ready for Integration
- Maintenance/Compliance
- NACHA Tokenization (MM, EVO, AHR)

## Mid Market

- Upgrade to SQL Server 2022
- Geo Locator

## EVO

- Client S&P Hardening
- DB Changes

## AHR

- Emp Mass Update
- Performance

Q3 2023

## Mid Market

- New Calc Engine
- Asure Identity

## Advanced HR

- Employee Mass Create
- Asure Identity

- **Asure Employee Portal**
- **Treasury System**
- **Tax Credits**

Q4 23  
and  
Q1 24

Q4 23  
through  
Q2 24

## EVO

- New Calc Engine
- Asure Identity



# Legacy Systems

## Strengths

- Proven Functionality
- Domain Expertise
- Customization
- Operational Experience
- Data Legacy

## Pitfalls

- Limited Scalability
- Integration Challenges
- Security Concerns
- Outdated technology/UI
- Maintenance & Support Issues
- Limited reporting

## Driving Modernization Fostering a Culture of Innovation

Improved Efficiency and Higher Scalability  
Modern, Secure & Innovative  
API Integration  
Low cost to serve and maintain  
Enhanced user experience  
Simple & Intuitive  
Centralized Dashboard  
Automation & Optimization

**Harnessing the power of APIs, we're making the complex task of leveraging data from legacy systems easier than ever, paving the way for seamless reporting**

# The Modernization Journey

Infrastructure & Back End  
Prerequisite to a successful modernization

- Plays a pivotal role in delivering reliable and efficient systems
- Groundwork for a seamless & robust modernization
- Enhanced user experience with faster load times, improved system performance and fewer disruptions

**Transitional Strategy**

**Amazon Modernization Lab**

**Employee Centric Solution**



# Asure Future Calc Engine

## Accessible via APIs to initiate and receive calculated payloads

### Implementation

Calculation logic to be per employee

Modern implementation language

Cloud native technologies

### Data Coupling

Data Source Agnostic

Decouple compliance data from data required for payroll calculations

### Well Architected

Highly-available and active across multiple regions

Observable

Secure

Cost Effective

Scalable

### Future-Proofing

Achieves parity with existing payroll tax engine calculations and can serve as their replacement

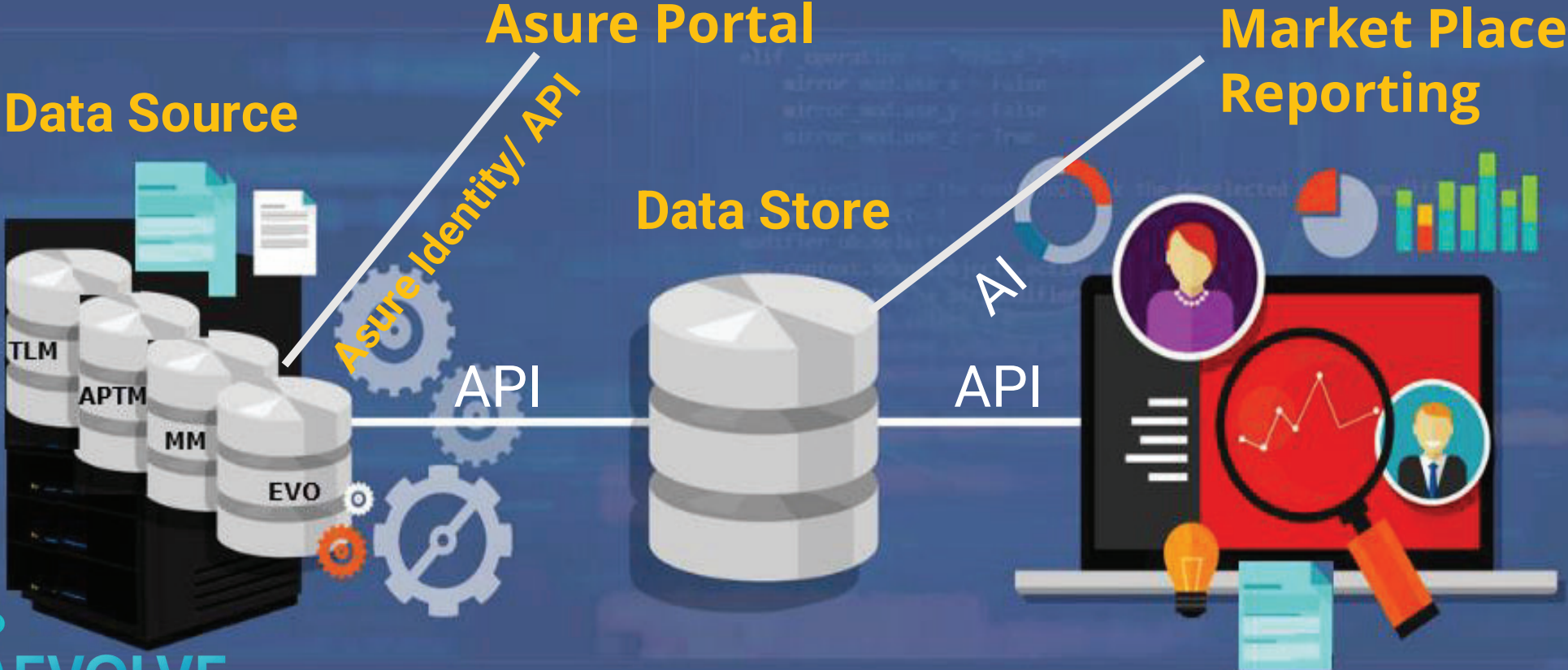
Extensible to meet newer requirements of payroll transparently

# Next Generation Engine Demo

30,000 employee payroll run - Total Duration 4 min 14 sec

The screenshot displays the Postman interface for an API collection named "Payroll Engine API". The interface includes a sidebar with "Collections" and "Environments", a main content area with tabs for "Overview", "Authorization", "Pre-request Script", "Tests", "Variables", and "Runs", and a right-hand panel showing metadata. The "Overview" tab is active, displaying the collection name, a "Request Access" button, and creation details: "Created by Cuong Lai" and "Created on 05 Jul 2023, 1:47 PM". A "View complete documentation" link is also visible. The top navigation bar shows "Home", "Workspaces", "API Network", and "Explore".

# Building a Comprehensive Modern Data Ecosystem





# Flexible data ecosystem that brings efficiency, scalability, and advanced insights.

## The Foundation: Data Lake

**Data Centralization**

**Data Consistency**

**Flexibility and Scalability**

**Secure Storage**

## API Layer: Enabling Connectivity

**Seamless Connection**

**Standardized Interfaces**

**Modular Development**

**Future-Proofing**

## AI-Powered Analytics & Insights

**Advanced Data Analysis**

**Predictive Capabilities**

**Personalization and UX**

**Automation and Efficiency**

**Real-Time Insights**

**Scalability and Speed**

**Data is not just stored; it's transformed**






# The Modernization Journey

## Employee Centric Portal

- UI/UX backend-agnostic architecture
- Intuitive, seamless and simple
- Leverage API contracts to abstract backend complexities
- AI-powered support 24-7
- Responsive and compatible across desktop, tablet and mobile

**Transitional Strategy**

**Employee Centric Solution**



### Sign In


[Forgot Username or Password ?](#)

Remember me on this computer

We use browser cookies to track your session to give better experience. You can refer to our [Cookie Policy](#) for more details.


By signing in, you agree to our [Privacy Policy](#)

[Continue](#)



Passwords

3 Matching Logins

 asurehcm.com pam.mercier@asuresoftwar...	▼
---	---

[Fill Record](#)

▼ Show More

# Good afternoon, Evangeline!

- Home
- Time
- Pay
- Benefits
- Marketplace
- More

### Time clock

Last Punched: 2/26/2022, 7:00:00 PM



 **12:06 AM**  
Mon Aug 14 2023

[View time card](#)

[Punch in](#)

### Action Items

Items you need to complete

-  Complete Direct Deposit >
-  Sign Documents >
-  Complete W-2 >



Paid on May 31, 2023

\$\*\*\*\*\*

Your next payday is on August 28!


[View Paystub & Documents](#)

April 2023



S M T W T F S

### Monday, August 14

 Sunday Off







### Announcements

Nov 2, 2021

#### Testing

1. Lorem ipsum dolor sit amet, consectetur

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# The Modernization Journey



## Tax Portal & Electronic Transmission



Dashboard

Tax Packages

Profile

Liabilities Issues

0

Funding Issues

\$45,706.19

Payments Issues

81

NSF Hold

\$9,190.28

Applied For

\$106.40

Alerts

2

QTD Q3 ▾ 2023 ▾

Type	Amount
Liabilities	\$0.00
Funds	\$0.00
Payments	\$0.00

Announcements

01/01/23 CAEDD Rate Change

01/01/23 ILSUI February Monthly Wage Report Deadline

[View All](#)

Quarter End Q1 ▾ 2022 ▾ Status: Completed

Summary

Type	Periodic	Quarterly	Variance
<b>Total</b>	\$313,970.11	\$314,317.96	(\$347.85)
Federal	\$259,066.01	\$259,065.72	\$0.29
State	\$54,780.55	\$55,128.69	(\$348.14)
Other	\$123.55	\$123.55	\$0.00

Filing

Type	Filed	Total
<b>All</b>	25	25
Federal	1	1
State	24	24
Other	0	0

Recent Liabilities

Search...

Check Date	Entry Date	Amount	Status
06/30/23	06/29/23	\$9,190.28	Check
06/26/23	06/23/23	\$9,190.28	Valid
06/23/23	06/22/23	\$46,287.62	Valid
06/19/23	06/16/23	\$45,729.04	Valid
06/16/23	06/15/23	\$45,678.07	Valid

1 - 5 of 38 items

« < 1 2 3 ... > »

Payments Unpaid ▾

Search...

Due Date	Amount	Paid	Count
08/09/23	\$1,252.79	No	16
08/05/23	\$363.04	No	10
08/02/23	\$239.15	No	5
07/29/23	\$39,113.80	No	3
07/26/23	\$111.02	No	6

1 - 5 of 9 items

« < 1 2 > »

**Asure**

BH BAKERY INC. APT M Reseller aptm.reseller

Liabilities Issues	Funding Issues
0	\$0.00
Payments Issues	NSF Hold
18	\$0.00
Applied For	Alerts
\$0.00	0

**QTD Q2 2022**

Type	Amount
Liabilities	\$488,533.55
Type	Amount
Funds	\$488,533.55
Type	Amount
Payments	\$377,873.95

**Announcements**

- 01/01/23 CAEDD Rate Change
- 01/01/23 ILSUI February Monthly Wage Report Deadline

[View All](#)

**Recent Liabilities**

**Asure** DOUGH NUTS INC. APT M Reseller aptm.reseller

**Tax Packages Q1 2022**

File Name	Download
QePkg_APTM0001_04150_2022Q1 (1).zip	
RtnPkg_APTM0001_04150_2022Q1 (1).zip	

1 - 2 of 2 items

**Asure** DOUGH NUTS INC. APT M Reseller aptm.reseller

**Company Details**

<b>Legal Name:</b> Dough Nuts Inc.	<b>FEIN:</b> 12-3456789
<b>DBA:</b> Dough Nuts Inc.	<b>Client ID:</b> APTM0001
<b>Address:</b> 123 City Drive Irvine, CA 92602	<b>Payroll ID:</b> 04150
	<b>NSF Hold:</b> Yes

**Contact**

**Contact Name:** Tom Edison  
**Phone:** (714) 555-1234  
**Fax:** (714) 555-4321  
**Email:** tom.edison@doughnuts.com

**Tax Agencies** Banking

**Agency**

Agency ID	Description	Main Agency ID	Client Tax ID	Frequency Type	Frequency	Tax Rate %	Status
FUTA	FUTA	FUTA	12-2121212	FEDQTR	Quarterly	0.6	Active
IRS	IRS - 941/944	IRS	12-2121212	FEDSWQREC	Semi-Weekly		Active
AZASSESS	AZ JOB TRAINING TAX	AZSUI	1212121 1	FEDQTR	Quarterly	0	Active
AZSPASSESS	AZ SPECIAL ASSESSMENT	AZSUI	1212121 1	FEDQTR	Quarterly	0	Active
AZSUI	AZ SUI	AZSUI	1212121 1	FEDQTR	Quarterly	0.78	Active

1 - 5 of 49 items



**Asure**

BH BAKERY INC. ▾ AR APTM Reseller aptm.reseller

Liabilities Issues	Funding Issues
0	\$0.00
Payments Issues	NSF Hold
18	\$0.00
Applied For	Alerts
\$0.00	0

**QTD Q2 ▾ 2022 ▾**

Type	Amount
Liabilities	\$488,533.55
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[View All](#)

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**Asure** DOUGH NUTS INC. ▾ AR APTM Reseller aptm.reseller

**Tax Packages Q1 ▾ 2022 ▾**

File Name	Download
QePkg_APTM0001_04150_2022Q1 (1).zip	
RtnPkg_APTM0001_04150_2022Q1 (1).zip	

1 - 2 of 2 items ◀ < 1 > ▶

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Active ▾

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AZSPASSESS	AZ SPECIAL ASSESSMENT	AZSUI	1212121 1	FEDQTR	Quarterly	0	Active
AZSUI	AZ SUI	AZSUI	1212121 1	FEDQTR	Quarterly	0.78	Active

1 - 5 of 49 items 5 ▾ items per page ◀ < 1 2 3 ... > ▶

# Integration Team

Seamless Connectivity executing an API-first strategy

# API

# Artificial Intelligence everywhere, all at once

“We have aggregated data across a lot of different technologies over time, and I think what we’re finding now is that the lakehouse has the best cost performance straight off.”

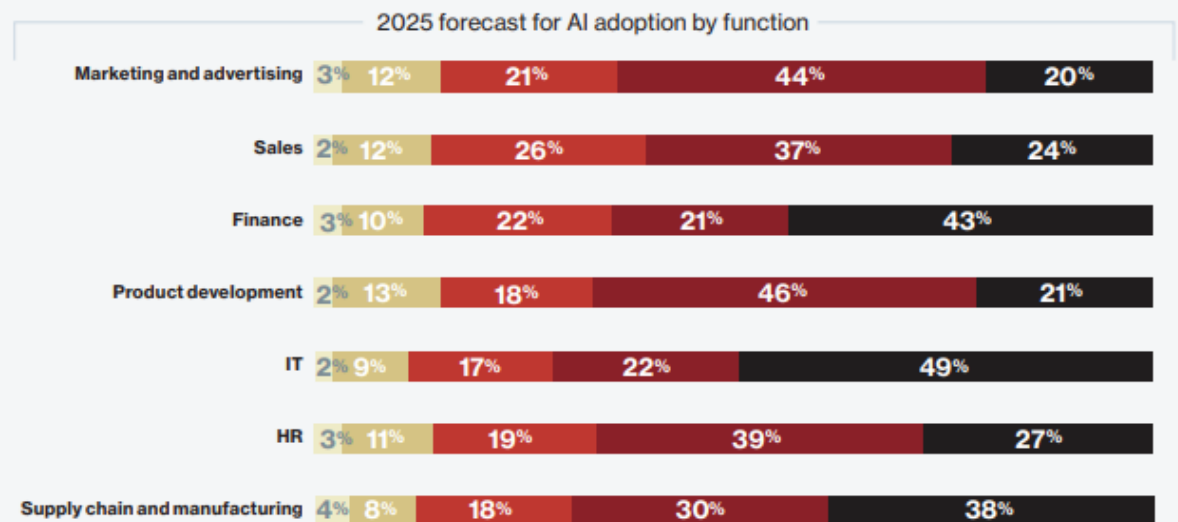
Andrew Blyton, Vice President and Chief Information Officer, DuPont Water & Protection

“Typical databases are designed for only one type of data. Lakehouse allows us to move much quicker.”

Owen O’Connell, Senior Vice President and Chief Information Officer (Information Digital Services and Operations), Shell

**Figure 4: Limited AI ambitions**

Before generative AI, few organizations aimed to make AI a critical capability across key functions by 2025.



Source: MIT Technology Review Insights survey, 2022.

# Artificial Intelligence Team

Empowering the Future with AI through Data Science and driving AI-powered innovation





**Asure Listens**

**AI Customer Interaction  
and sentiment analysis**

# Asure AI - Customer Support



**AWS Transcribe for voice to text conversion:** uses machine learning to convert audio to text

**AI Based Sentiment Analysis** – AWS Comprehend service – (NLP Service) – It analyzes text and extract insights such as sentiment, entities, key phrases, and more

**Sentiment Labels:** Positive, Negative, Neutral, Mixed, or Error

**Customization:** You can provide your own training data with sentiment labels to fine-tune the model according to your specific domain or use case.

**API Integration:** Amazon Comprehend's sentiment analysis can be accessed programmatically through its API, making it easy to integrate into applications and services.

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April 2023 ▾



S M T W T F S

### Monday, August 14

 Sunday Off

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Nov 2, 2021

#### Testing

1. Lorem ipsum dolor sit amet, consectetur



## Asure AI Payroll & Tax Assitant

user\_input



Clear

Submit

output

Flag

# Treasury System



## Effortless Transmission

Streamlined process to transmit fund securely



## Seamless Money Movement

Experience the power of frictionless money movement



## Precise Account Reconciliation

Bid farewell to the complexities of reconciling accounts across multiple systems



## Balance Sheet Management

Gain unparalleled insights into your financial health



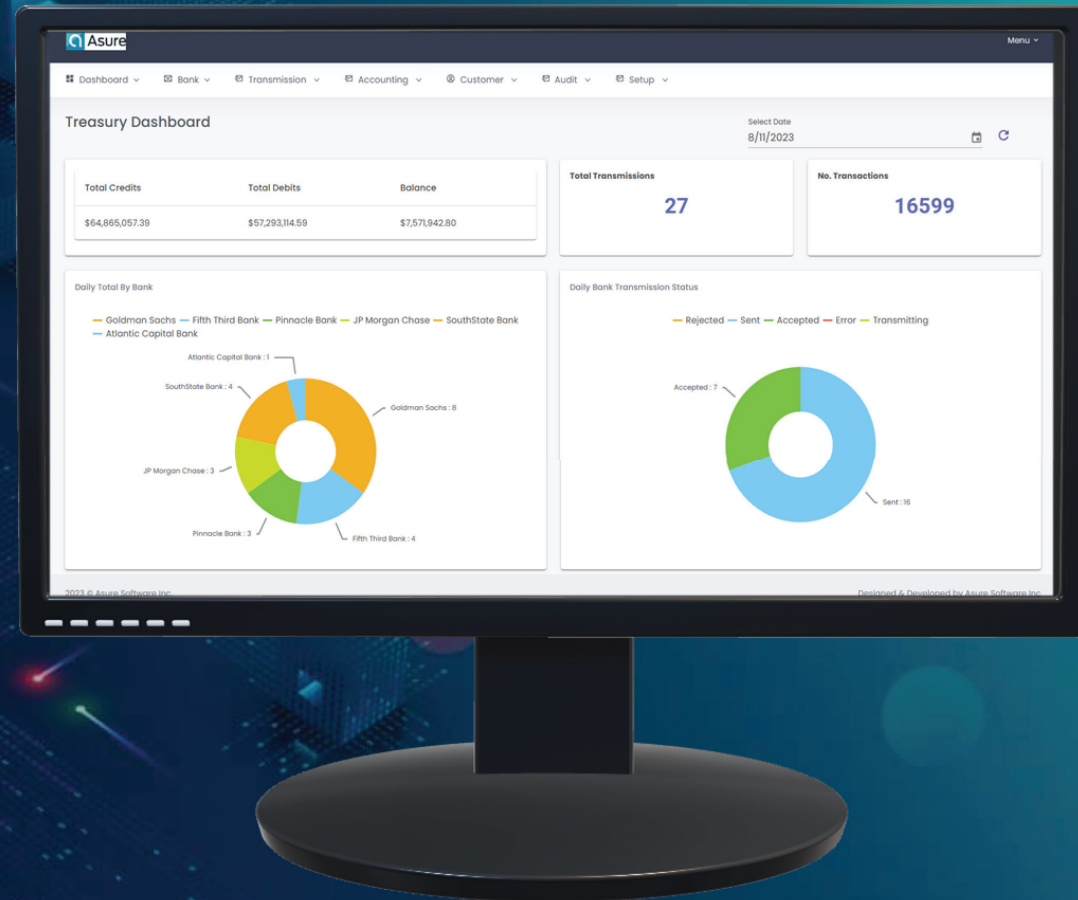
## Customizable and Scalable

Tailor the treasury system to fit you unique requirements



## User-Friendly Interface

No need to be a financial expert to harness the power of our treasury system



Customer Bank Dashboard

Select Date  
8/11/2023



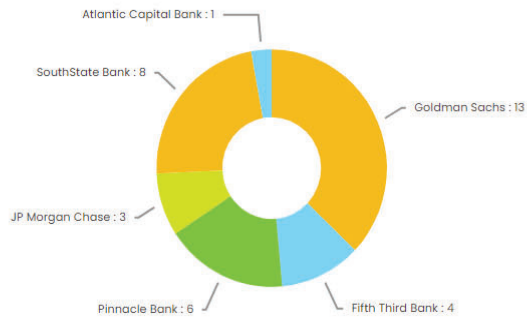
Total Credits	Total Debits	Balance
\$111,652,426.81	\$85,191,034.15	\$26,461,392.66

**Total Transmissions**  
**39**

**No. Transactions**  
**26907**

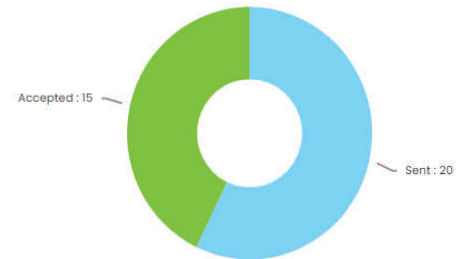
Daily Total By Bank

Goldman Sachs Fifth Third Bank Pinnacle Bank JP Morgan Chase SouthState Bank Atlantic Capital Bank



Daily Bank Transmission Status

Rejected Sent Accepted Error Transmitting



# ERTC and 941X

Automated solution for ERTC and 941X filings  
Time Savings, Accuracy, Scalability, Efficiency, Flexibility



TAX





 **PRODUCTIVITY**

 **PROCESS**

 **TECHNOLOGY**

# AUTOMATION

 **DIGITAL**

 **IMPROVEMENT**

 **INNOVATION**





# Tax Credits App

**File Import**  
Web app, API endpoint, or SFTP

ERTC ▾

- Upload >
  - Amendments
  - Form 2848
  - Form 8821
- Amendments
- Schedule B
- IRS Transcripts

**Validation**  
Ensures accuracy and compliance

Quarter Sum	Status	Error Message
\$7,189.44	Pending Approval	Qualified wages x 50% and Calculated Credit amount are not equal. File: 10055, Calc:10054.5.
\$4,833.75	Pending Approval	Qualified wages x 50% and Calculated Credit amount are not equal. File: 10092, Calc:10091.5.
\$5,522.66	Pending Approval	Qualified wages x 50% and Calculated Credit amount are not equal. File: 10175, Calc:10174.5.
\$5,522.66	Pending Approval	Qualified wages x 50% and Calculated Credit amount are not equal. File: 10175, Calc:10174.5.

**Data Exchange**  
Close to real time data Transcript with IRS

Code	Description	Value
766	Credit Amount	(9165.45)
846	Refund Issued Date	3/20/2023
291	Reduced or removed prior tax assessed Amount	(925.63)
766	Credit Date	7/1/2020
776	Interest credited to your account Date	3/20/2023
776	Interest credited to your account	(989.20)

**Workflow**  
Streamline review and approval processes

Record Id	Company Name	Status
1000017322	Test Company	Pending Approval
1000017322	Test Company	Approved
1000017322	Test Company	Filed
1000013677	Test Company	Completed
1000013677	Test Company	Error
1000013677	Test Company	Rejected

# ERTC API

POST /ertc/amendment/create Send amendment creation request

Parameters Try it out

Name	Description
tenantid <sup>required</sup>	uuid provided by Azure to identify the partner.
string (Body)	<input type="text" value="tenantid"/>

Request body <sup>required</sup> application/json

Example Value | Schema

```
{
  "EmployeeWages": [
    {
      "SSN": "1234567890",
      "name": "John Doe",
      "Wages": 25.31,
      "HealthCare": 82.11
    }
  ],
  "RecordID": "123456",
  "CompanyFEIN": "123456789",
  "name": "Example Company",
  "TradeName": "Example Trade Name",
  "Address": "1234 Street",
  "City": "Some City",
  "State": "TX",
  "ZipCode": "12345",
  "ForeignCountryName": "Some Foreign Country",
  "ForeignProvince": "Some Foreign Province",
  "ForeignPostalCode": "acb1234",
  "Year": 2020,
  "Quarter": 1,
  "TaxableSocialSecurityWages": 123.11,
  "TaxableSocialSecurityTips": 782.33,
  "NonRefundableCredit118": 89.23,
  "TaxableMedicareWagesAndTips": 88.23
}
```

Responses

```
ErtcRecord:
  type: object
  properties:
    EmployeeWages:
      type: array
      items:
        properties:
          SSN:
            type: string
            example: 1234567890
          name:
            type: string
            example: John Doe
          Wages:
            type: number
            example: 25.31
          HealthCare:
            type: number
            example: 82.11

RecordID:
  type: string
  example: 123456

CompanyFEIN:
  type: string
  example: 123456789

name:
  type: string
  example: Example Company

TradeName:
  type: string
  example: Example Trade Name

Address:
  type: string
  example: 1234 street

City:
  type: string
  example: Some City

State:
  type: string
  example: TX

ZipCode:
  type: string
  example: 12345

ForeignCountryName:
  type: string
```



# Robotic Process Automation Team

Replacing mundane tasks

Automating Efficiency

Digital Assistant



# Compliance

Adherence to regulations and standards while collaborating with other teams to achieve compliance and innovation simultaneously





**InfoSec, DevOps, DevSecOps**

**Securing Tomorrow, Today**

Agile Development & Secure Operations

Streamlining Development Processes

Embedding Security Practices

**Unlocking AsureIdentity & Cybersecurity in Payroll**



# Product Management

Translate the customer needs into innovative solutions, while maintaining a strong connection with compliance and quality





## Quality Assurance

Ensuring Excellence by maintaining high-quality standards through Thorough and Rigorous testing processes

Building Reliability and Trustworthiness



**Thank You**