

Powering New Experiences with APIs

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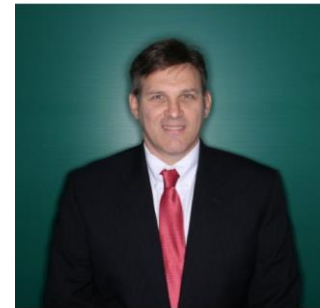
Dan Vorhes, VP, Digital Channels Product Management, PNC

Dan Vorhes is a vice president in the Corporate and Institutional banking group at PNC. In his current role, Dan leads the business strategy for APIs. Dan works to provide secure financial system integrations between client systems and PNC services. He has 25+ years of experience in product management and software development creating new products in emerging markets. Dan earned his bachelor's degree from Carnegie Mellon University in business management.



Glenn A. Davis, VP, Solution Advisor, Treasury Solutions Group, PNC

Glenn A. Davis has 30-plus years of banking and product management experience. In his current role as a solution advisor in PNC's Treasury Solutions Group, Glenn helps corporate and institutional organizations gain efficiencies for collection, payment, liquidity, information management and fraud prevention. He accomplishes this by recommending strategies to improve order to cash (streamlining and accelerating collections) and procure to pay (streamlining and extending working capital through different payments strategies). Glenn routinely speaks with commercial and corporate entities how to make it easier to connect to banks using modern payment methods and the latest technologies.



Technology is disrupting every industry

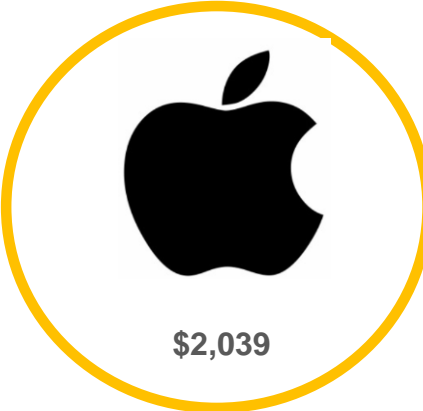
Five largest public companies, by market capitalization (\$billions)



2006



2020



Since March **+\$1034**

+\$594

+\$713

+\$461

+\$393

¹Source: Visual Capitalist ²Based on closing price 11/11

CUSTOMER EXPERIENCE



PROBLEM SOLVED IN NO TIME.

SO HELPFUL.

in

IT'S LIKE THEY KNOW ME!

g+

THEY NEVER KEEP ME WAITING...

WOW.

I CAN'T SPEAK HIGHLY ENOUGH...

twitter

WORTH TALKING ABOUT



#GREAT

THEY MAKE IT SO EASY...

THOROUGHLY RECOMMENDED!

CONSISTENTLY SUPERB SERVICE.

f

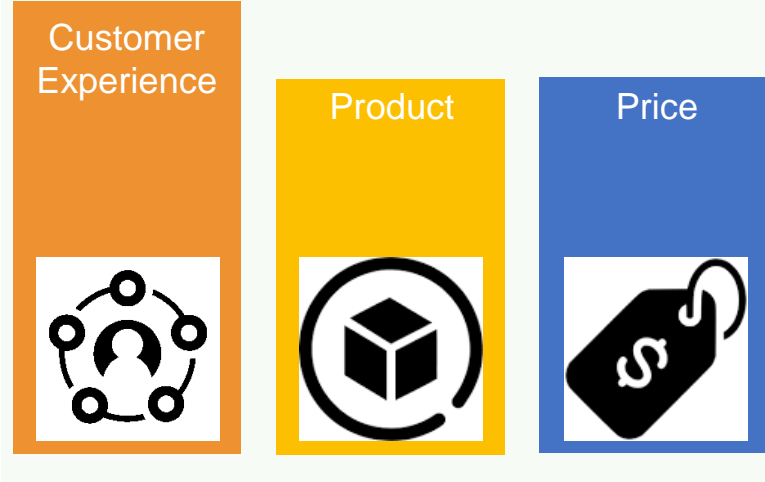
...AS IF I'M SPEAKING TO A FRIEND.

THX

FANTASTIC.

In 2020, customer experience will overtake price and product as the key brand differentiator

Source: Gartner



In the age of pervasive digital interaction, **brand = experience**; you can't have one without the other



Today's most valuable brands have one thing in common: the central role of digital experience as a driver of brand equity.



Experience, supported by digital technology, drives growth

"The average tenure of a company in the Fortune 500 fifty years ago was 75 years. Today it is less than 15 years and declining all the time." "B2B – 3 REASONS WHY DIGITAL DISRUPTION IS KILLING YOUR BUSINESS", Peter Dent

The customer challenge



Why do I have to use this bank portal to do everything? Why can't it talk to my other systems?



"I can use APIs to build an innovative client payment experience and integrate it into my core systems!"



"I need to make payments to my customers faster and easier because I am being disrupted!"

Develop a world-class experience for your customer.

With PNC APIs, you can create, customize and deliver products that leverage our valued financial services.

[Login](#)

- Designed for Your Needs**
Our APIs help ensure the best experience for you and your customers.
- Secure Access**
Customer data protected through OAuth2 authentication.
- Detailed Documentation**
View detailed documentation for all PNC products and services.

developer.pnc.com

WHAT IS IT?

Set of rules that software programs can follow to communicate with each other

Makes functions of a service available in other applications

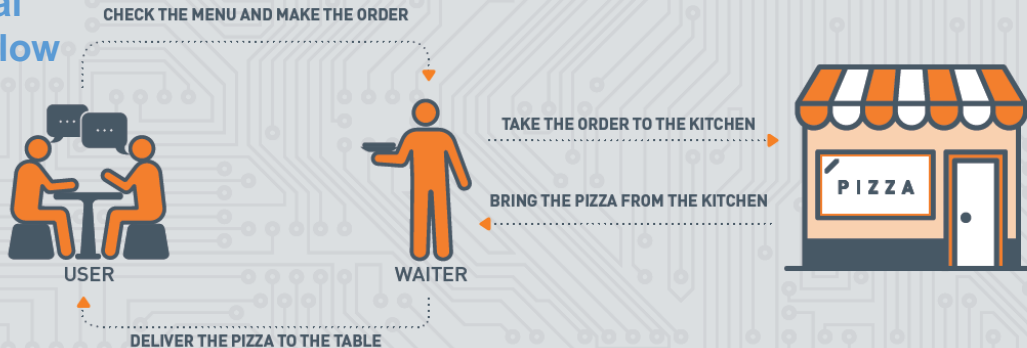
Creates a comprehensive digital experience by connecting to the products and services that power it

HOW DO THEY WORK?

83% Companies consider APIs to be a critical part of their business strategy¹

67% Companies expecting to use APIs more in 2020 than in 2019²

Manual Workflow



WHY?



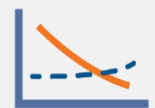
Highly Reliable



Open Standards



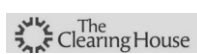
Clear Specifications



Predictable Outcomes

An example of a robust API ecosystem

Banking as a platform – 4 Key Areas



Payment Networks



API Ecosystem



Distributed Data
Banks can expose APIs to partners, and platform providers through secure connections

Connectivity
Banks continue to build out the suite of API's to provide direct connectivity for clients

Platforms

Clients

Open Banking
Banks continue to provide transparency needed/required by offering access to financial records

Service Providers

- Accounting Packages
- Treasury Workstations
- Cloud based ERPs

- Payments
- Information Reporting
- Receivables
- Payables
- Fraud Detection
- Verification Services
- Security / Authentication

- Aggregators
- Fintechs



Immediate money movement is becoming more of an **expectation**







Clients and their workers are questioning why they can move money in real-time to other individuals (ex. using Zelle, Venmo or card networks) but often Corporates are challenged to be able to move payments to their employees and contractors in real-time.



There has been a sharp increase in requests for daily payrolls and on-demand pay over the past year, driven by the gig economy

We want to be wherever our clients need us

- General Payroll 
- Emergency Payroll 
- Payroll Advance 
- Payroll Corrections 

*Verify combined with **Authenticate** compares customer information against account signature data from participating banks.*

Input

Required

- Routing Number
- Account Number
- Customer Name

Optional:

- Amount
- Check Number
- Address
- Date of Birth
- Social Security Number
- Phone Number

[Click Here To Upload A Batch](#)

Verify

Authenticate

Identify

OFAC

To enable an additional service for Verify, choose one of the buttons below.

Identify

CustomerID

OFAC

- For Verify - Routing Number and Account Number are required.

Bank Account Information

Routing Number:

Account Number: ×

Unique ID:

Account Type: ▼

Submit Transaction

Clear

Account Verification Services

AVS – Verify Response



[Click Here To Upload A Batch](#)

Verify

Authenticate

Identify

OFAC

Inquiry Information

Services Ran: Verify

Submitted By: scott.bellomo@pnc.com

Check Information

Routing Number: 122105278

Account Number: 0000000020

Results

Item Reference ID: 5004067746

Timestamp: 2/11/2019 12:47:41 PM

Bank Name: WELLS FARGO BANK NA (ARIZONA)

Verification Results

Account Response Code: **7777**

Account Verified – The checking account was found to be open and have a positive history.

Verification Response: **Pass**

[Download Results As PDF](#)

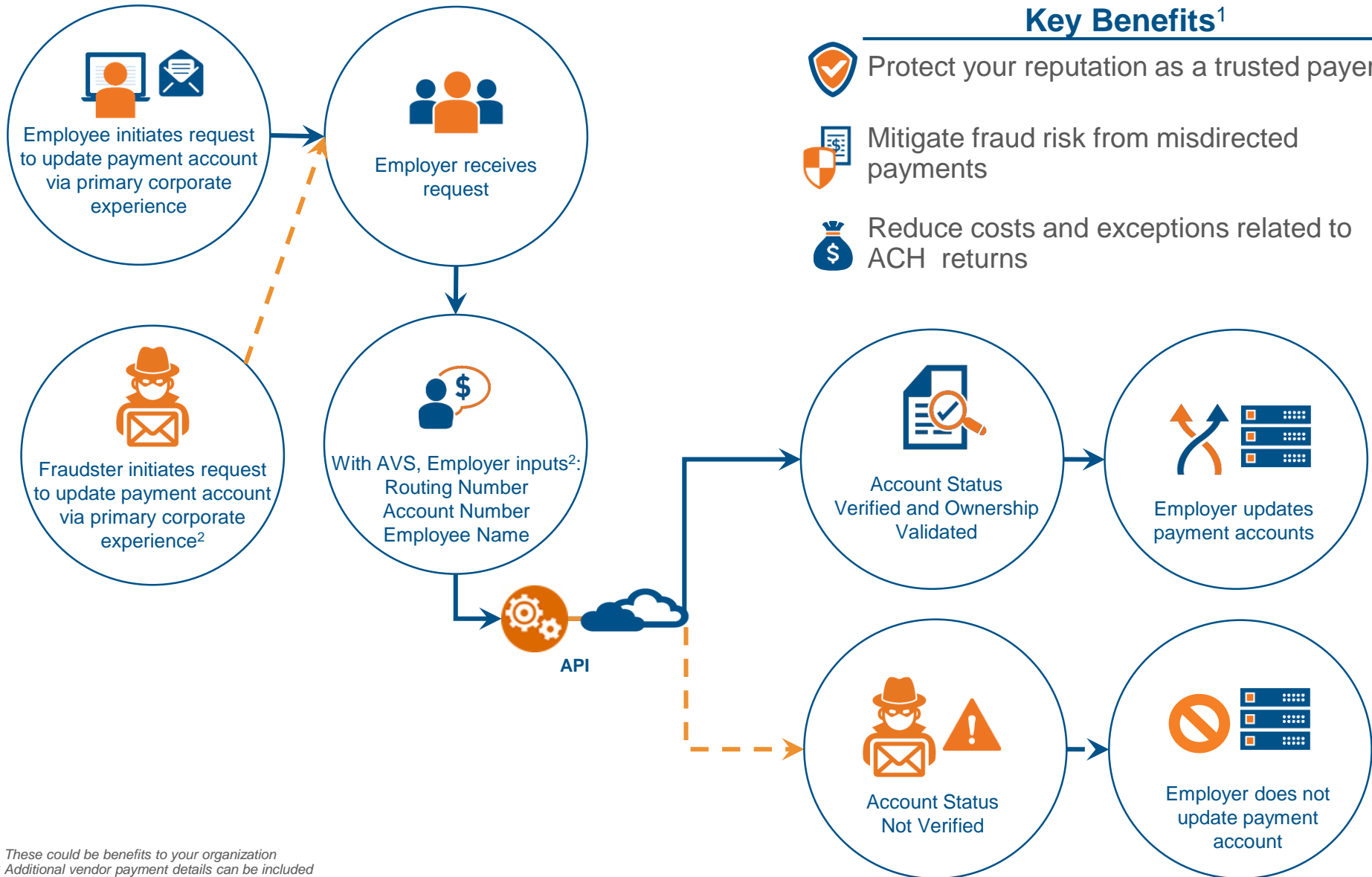
[Submit Another Transaction](#)

Response information along with Summary "Pass"

Consumer / Employee - Bank Account Verification



Process Flow: Mitigate Payroll Diversion (ACH PPD)



¹ These could be benefits to your organization
² Additional vendor payment details can be included

Real Time Payments

Using RTP APIs: RFP

1

Send Request for Payment

Generate a request to pay before delivery is made



Delivery Driver

AB Components, Inc.

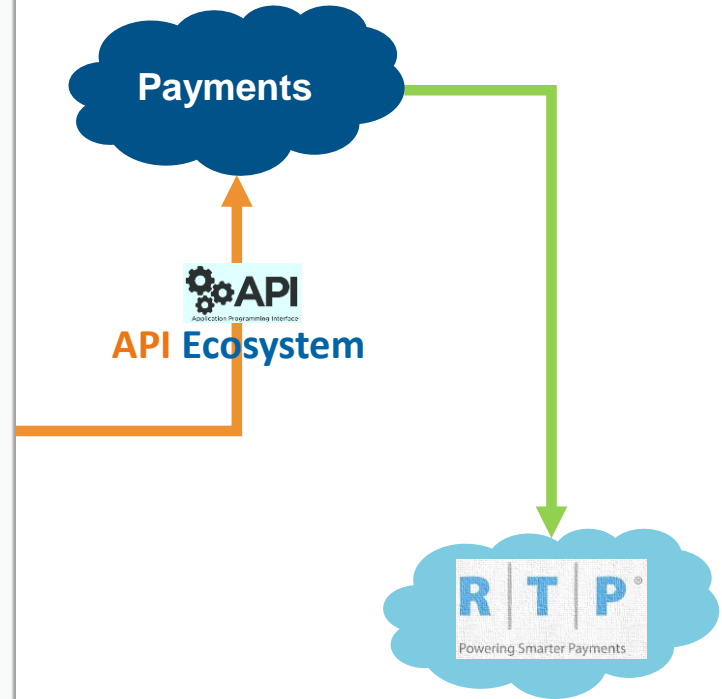
Find Another Receiver?

! Confirm payment prior to delivery.

Receiver Name	XY Systems
Receiver Address	123 West Street Pittsburgh, PA 15222
Amount	10,500.00
Value Date	06/04/2019
Remittance	Invoice #12345

See Receiver Details

Send Request



Real Time Payments

Using RTP APIs: Make a Payment



2 Send RTP

Receiver of goods or services: A/P
Department Originates a Payment

Payer



OR

Request for Payment (3 items)
For the period: 01/20/2019 to 04/22/2019 Print
As of 04/22/2019 9:00AM ET

RFP	PAY BY	SENDER ACCOUNT	SENDER NAME	RECEIVER ACCOUNT	AMOUNT REQUESTED USD	AMOUNT PAID USD	STATUS
▲	6/4/2019	1000466905					

Initiate Request - Freeform Entry

* Indicates required field

* Payment Type: Request for Payment

* Sender Account: 1000466905

Receiver Bank

* ID: 00000010 TCH Simulator ⓘ

* Name: PNC Bank

Receiver Information

* Receiver Account: 1002431925

* Receiver Name: Laura Schuster City: Pittsburgh

Address Line 1: 123 Main Street State: Pennsylvania

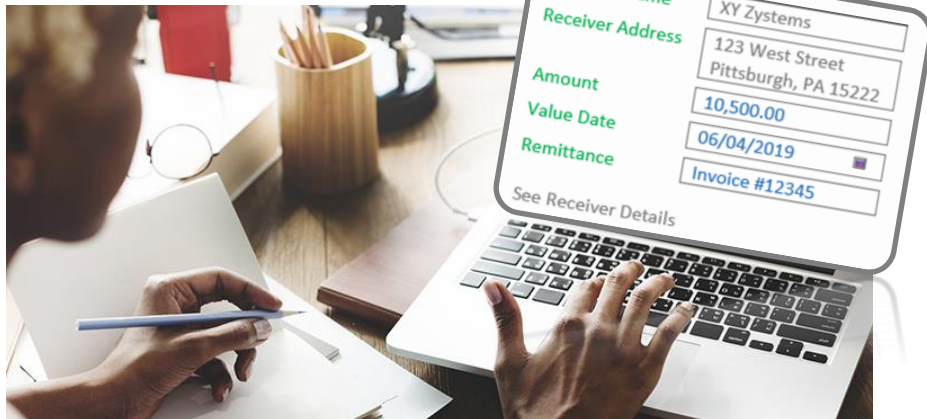
Address Line 2: Suite 100 ZIP: 15146

Payment Information

* Amount: 10,000.00 USD

* Value Date: 04/20/2019

* Pay By Date: 04/20/2019



Real Time Payments

Using RTP APIs: Status

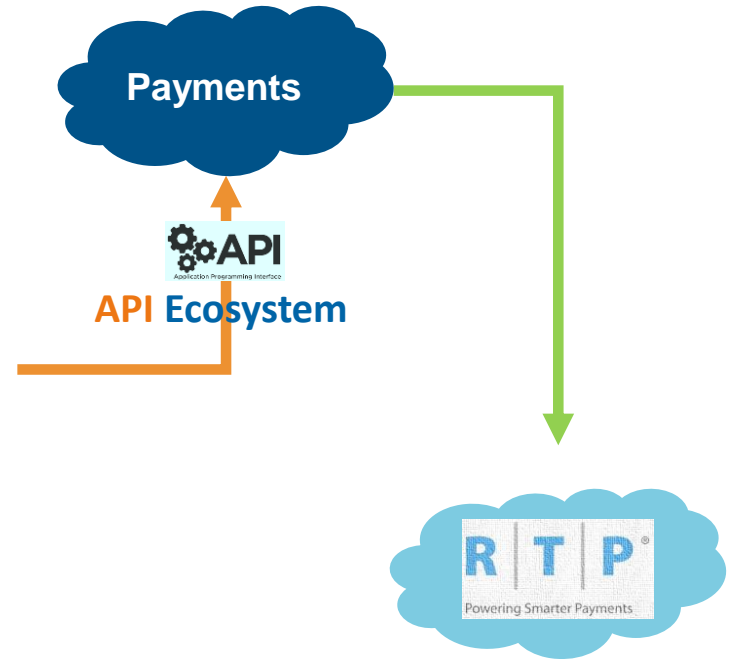
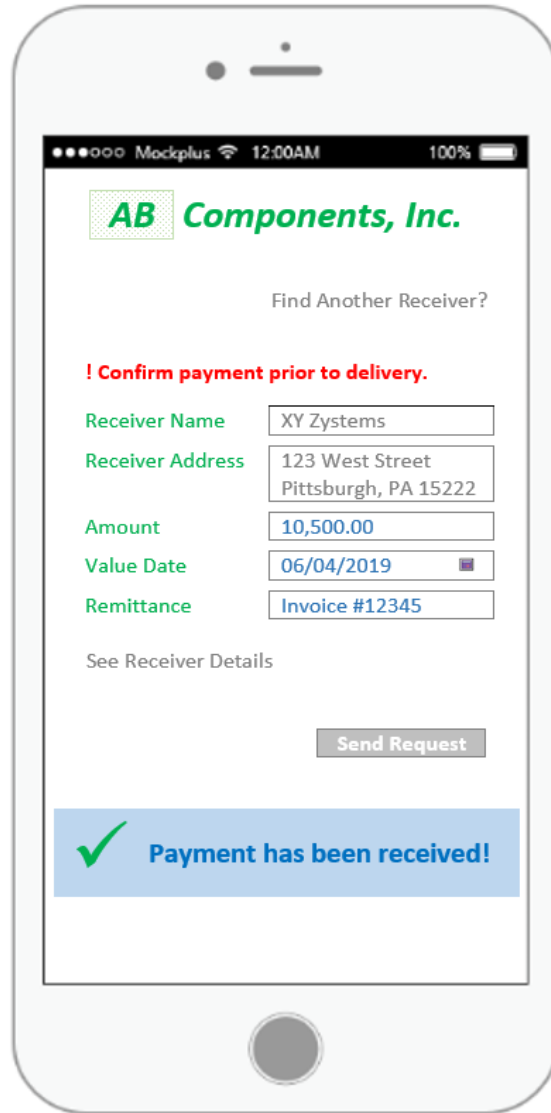
3

Send RTP Get Status Request



Delivery Driver

Generate request to see if they were paid



1

Verification

Add certainty to your payments

- Verify Account Existence
- Authenticate Ownership

2

Payments

Flexible payments combined with intelligent routing option

- RTP
- Wire (Domestic & International)
- Direct to Debit Card
- ACH
- ePayments (Zelle)



Verification of Accounts

Direct to Consumer Payments

Check Deposit Automation

Payment on Delivery

Real-time Payroll

3

Notifications

Stay informed with real-time updates via Webhooks

- Payments Status
- Request for Payments (RFP)
- Request for Information (RFI)

4

Reporting

Get detailed reporting delivered to your ERP

- Previous and Current Day Reporting with BAI
- Account Balances



IDEA!

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