FUTURE OF TREASURY TECH

AI, API, BD, BI, DL, RPA, XML

CRAIG JEFFERY

Founder & Managing Partner,
Strategic Treasurer

Certified Treasury Professional® | FP&A® Certified Corporate Financial Planning & Analysis Professional

WHAT.

An exploration of technologies that are changing treasury.

WHEN.

Thursday, March 18, 2021
2:00 PM – 3:00 PM EDT

WHERE.

Live Online Presentation

Strategic Treasurer | AFP® Association for Financial Professionals

This presentation is provided by Strategic Treasurer to Utah AFP.

SPEAKER

GET TO KNOW YOUR SUBJECT MATTER EXPERT

CRAIG JEFFERY, CCM, FLMI

Craig Jeffery formed Strategic Treasurer LLC in 2004 to provide corporate, educational and government entities direct access to comprehensive and current assistance with their treasury and financial process needs.

His 30+ years of financial and treasury experience as a practitioner and as a consultant have uniquely qualified him to help organizations craft realistic goals and achieve significant benefits quickly.

STRATEGIC TREASURER

Strategic Treasurer provides consulting, research and professional services for treasury management, security, technology and compliance. Corporate clients, banks and fintech providers throughout the world rely on their deep awareness of current practices, plans and perceptions through their annual surveys and decades of treasury experience.

With a mission to advance the practice of treasury by advising clients, assisting teams and informing the industry, Strategic Treasurer guides practitioners through real-world, mission-critical issues that organizations face today.

TOPICS OF DISCUSSION

EMERGING TECHNOLOGY TRENDS

CHALLENGES

ASSOCIATED WITH NEW TECH

CURRENT STATE

WHAT IS BEING USED NOW

FUTURE OF TREASURY

LOOKING AHEAD

UPGRADING TOOLS

THINGS CHANGE

KEY TAKEAWAYS

BEST PRACTICES, RESPONSES AND PLANS

POLL QUESTION

CHALLENGES

NEW TECH COMES WITH NEW CONCERNS

ALPHABET SOUP

- AI, API, BD, BI, DL, RPA, XML…

HOW TO GAIN FACILITY OF THE TOOLS

- Acquiring the assets

WHAT AND HOW TO MONITOR

- Intake and calibration

REAL VS. HYPE

- Why something will impact our world

NEW TECH

WHAT IS APPROPRIATE FOR YOUR ORGANIZATION

Democratization of technology increases opportunities, but companies should not assume all these offerings are the same. They are not.

- There are dozens of categories of treasury technology and an equally diverse array of providers that service the space.
- New innovations including ML and AI are causing major disruption in the technology space.
- While many groups have yet to adopt these technologies, data shows that steady adoption is expected over the next five years.
- Corporates must begin future-proofing by establishing a modern technical architecture.

AI – ML

API

BUSINESS INTELLIGENCE

ROBOTIC PROCESS AUTOMATION

BIG DATA

BLOB / DATA LAKE

XML

DISTRIBUTED LEDGER

THE CURRENT STATE OF TREASURY TECH

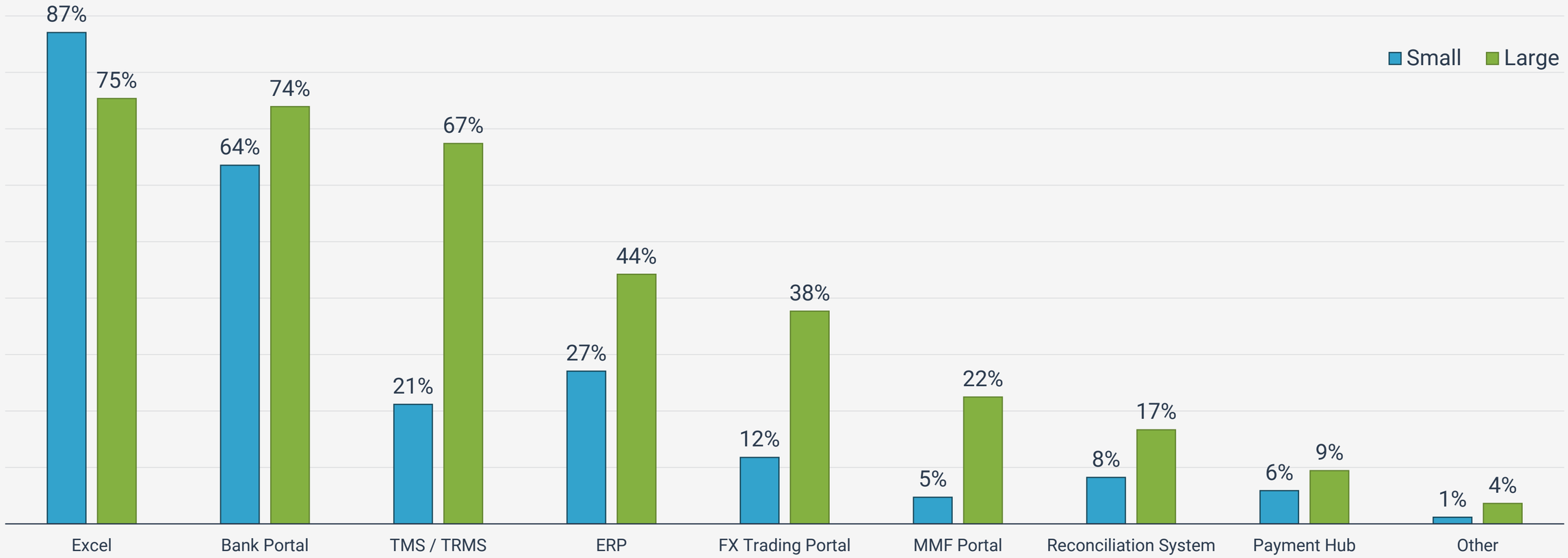
A LOOK AT THE TECHNOLOGY SOLUTIONS LANDSCAPE

Excel & Bank Portals Lead the Way

Across both small and large firms, Excel spreadsheets and bank portals are the most widely leveraged tools for managing treasury activity.

TMS / ERP Options

While a notable portion of large firms utilize a TMS or ERP for treasury, very few small firms do so. Aside from bank portals and Excel, there is significant deviation between small and large firms regarding their technology use.



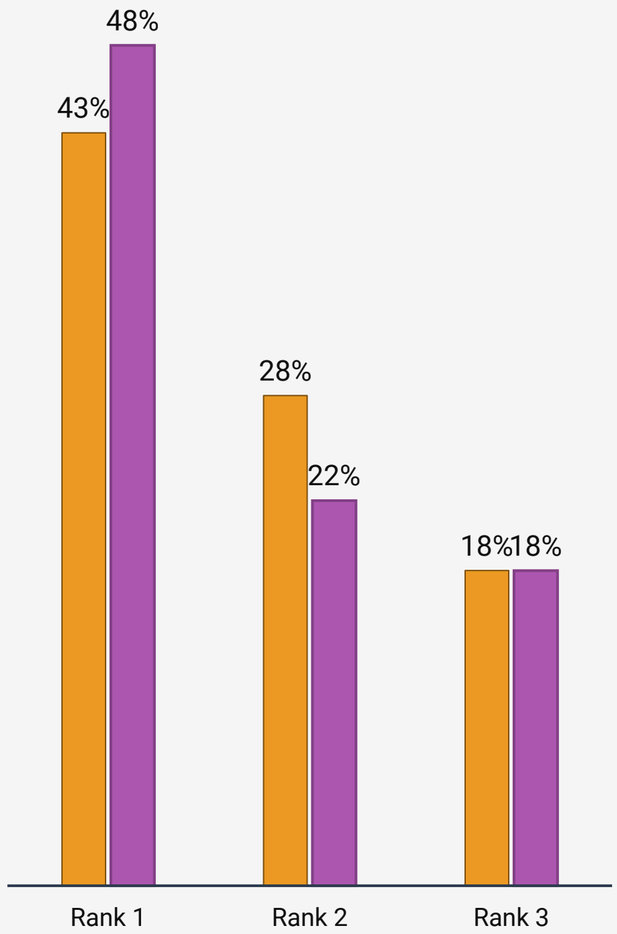
Data Source: 2018 Strategic Treasurer Rapid Research Technology Use Survey.

TECH USE

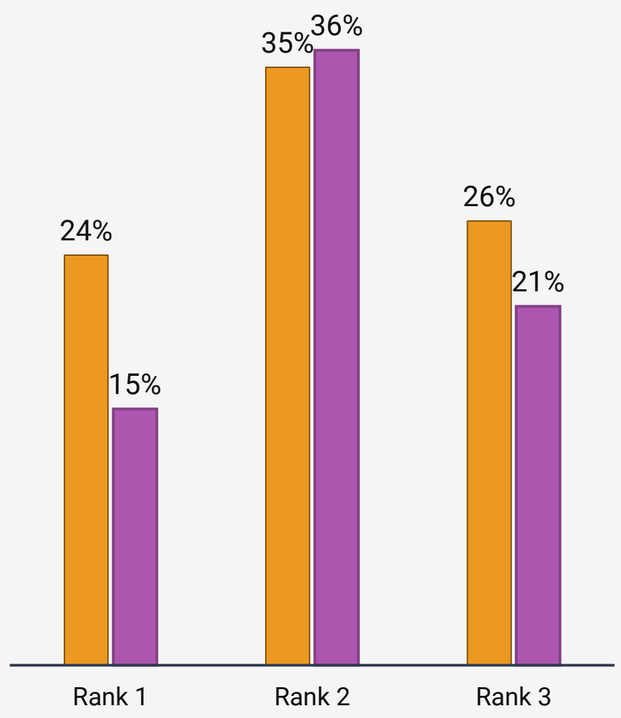
TREASURY – A PRACTICAL GROUP

» Please rank the following technologies or services in the order that you believe they will impact B2B payments over the next 2-3 years:

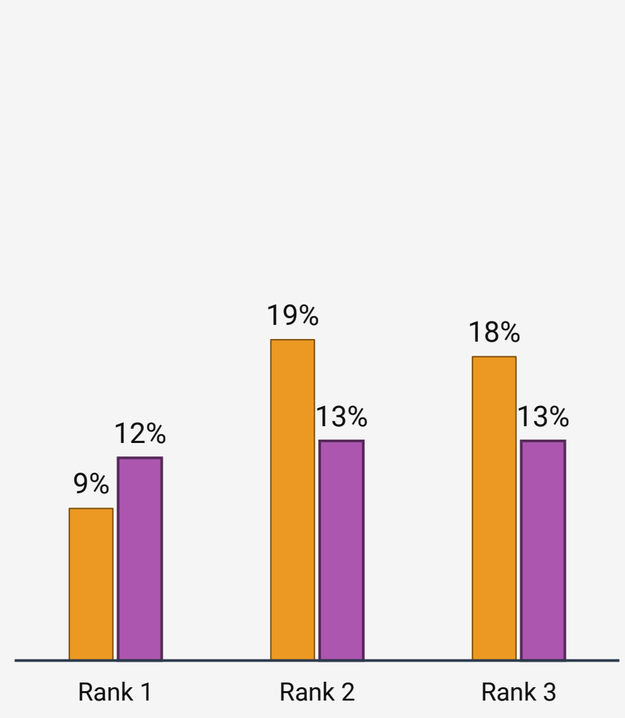
Application Programming Interface (APIs)



Artificial Intelligence (AI) / Machine Learning



Robotic Process Automation (RPA) / Bots



2020 2019

Source: B2B Payments Surveys

POLL QUESTION

STRATEGIC TREASURER

BIG ISSUES

TECH TO THE RESCUE OR IS TECH THE SOURCE?

DATA GROWTH

Data is growing at 40-60% per year

- 80% will be unstructured by 2025
- Gigabyte, Terabyte, Petabyte, Exabyte, ZettaBytes, Yottabytes

PROCESSING SPEED & COST

Moore's Law

- Doubling of transistors on microchips every 2 years
- Cost of computers is halved
- Exponential growth

IN MEMORY COMPUTING

FORMATS

FRAUD

AI, ML, & RPA

UPGRADING OUR TOOLS

THE GAME HAS CHANGED

CHESS MASTER

DEEP BLUE

- 1996: Lost to Gary Kasparov out of six games
- 1997: Upgraded, beat Gary Kasparov 3.5 to 2.5
- Alleged cheating – Deep Blue was dismantled

STOCKFISH

- 2014, 2016, 2018: Various versions
- Historical game inventory
- Massive computing power
- Open source

ALPHAZERO

- 2017: 9 hours of training and no access to historical chess games
- Plays Stockfish – 72 draws, 28 wins, 0 losses
- 4 hours of learning estimated to have a higher ELO than Stockfish

TOP GUN

ALPHADOGFIGHT TRIAL

- August 2020: AI system managed victory over a top U.S. Air Force fighter pilot
- The human opponent was “shot down” five times in a row by the AI drone
- The system was developed for a competition between 8 AI companies and went from concept to reality in just over a year
- Not a perfect comparison: AI had a significant advantage over the human pilot
  - The human pilot was forced to fight on the computer's terms, not vice versa
  - Events were heavily scripted with companies being provided that before the contest
  - Pilot had to use VR goggles and non-standard equipment

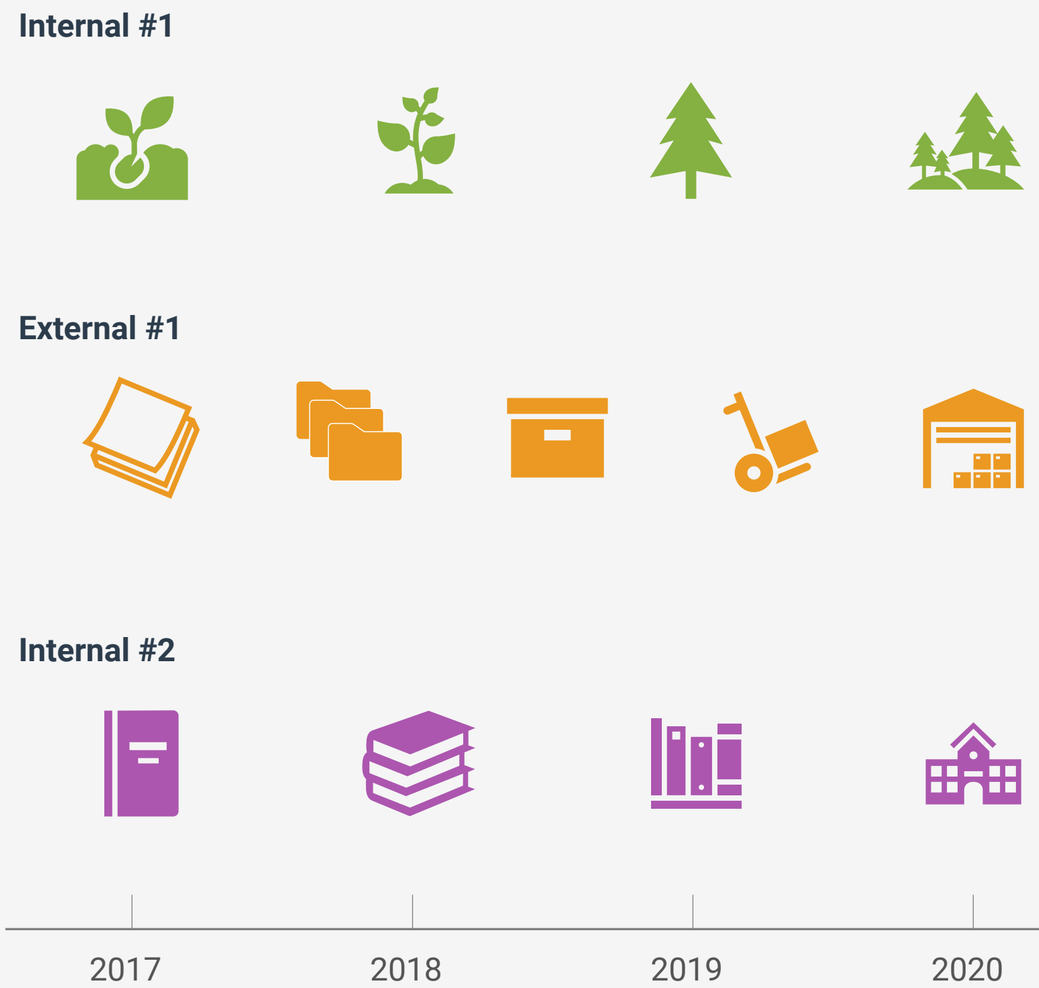
STRATEGIC TREASURER

BIG DATA • BI • ANALYTICS

REQUIRES A NEW PLAN FOR DATA ORGANIZATION

- **IN MEMORY**
- **STRUCTURED/ SEMI-STRUCTURED/ UNSTRUCTURED**
- **ACCESS IS KEY**
- **SECURITY GROWS IN RECOGNITION**
- **SELF DISCOVERY vs. GATED AND TIME DELAYED**

DATABASES ARE GROWING RAPIDLY

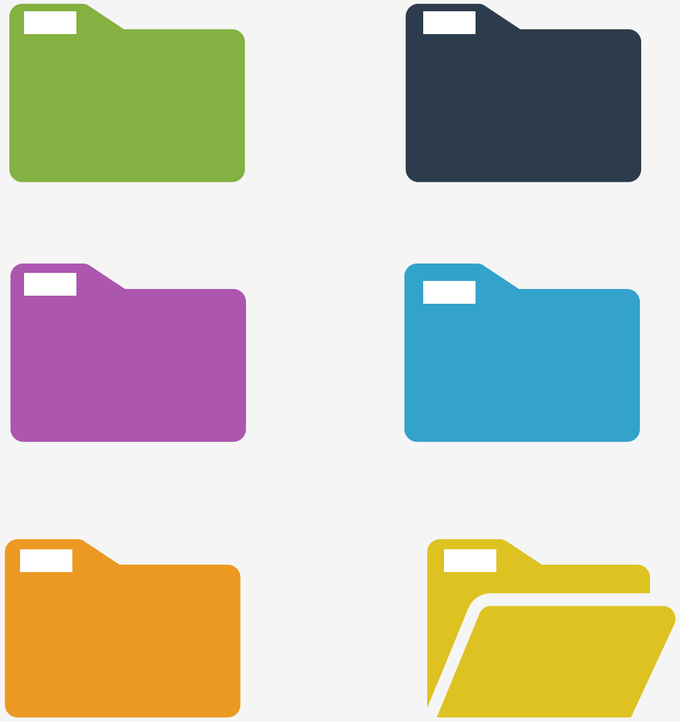


DATA STORAGE

BLOB & DATA LAKE

BLOB

- Flat
- Access



DATA LAKE

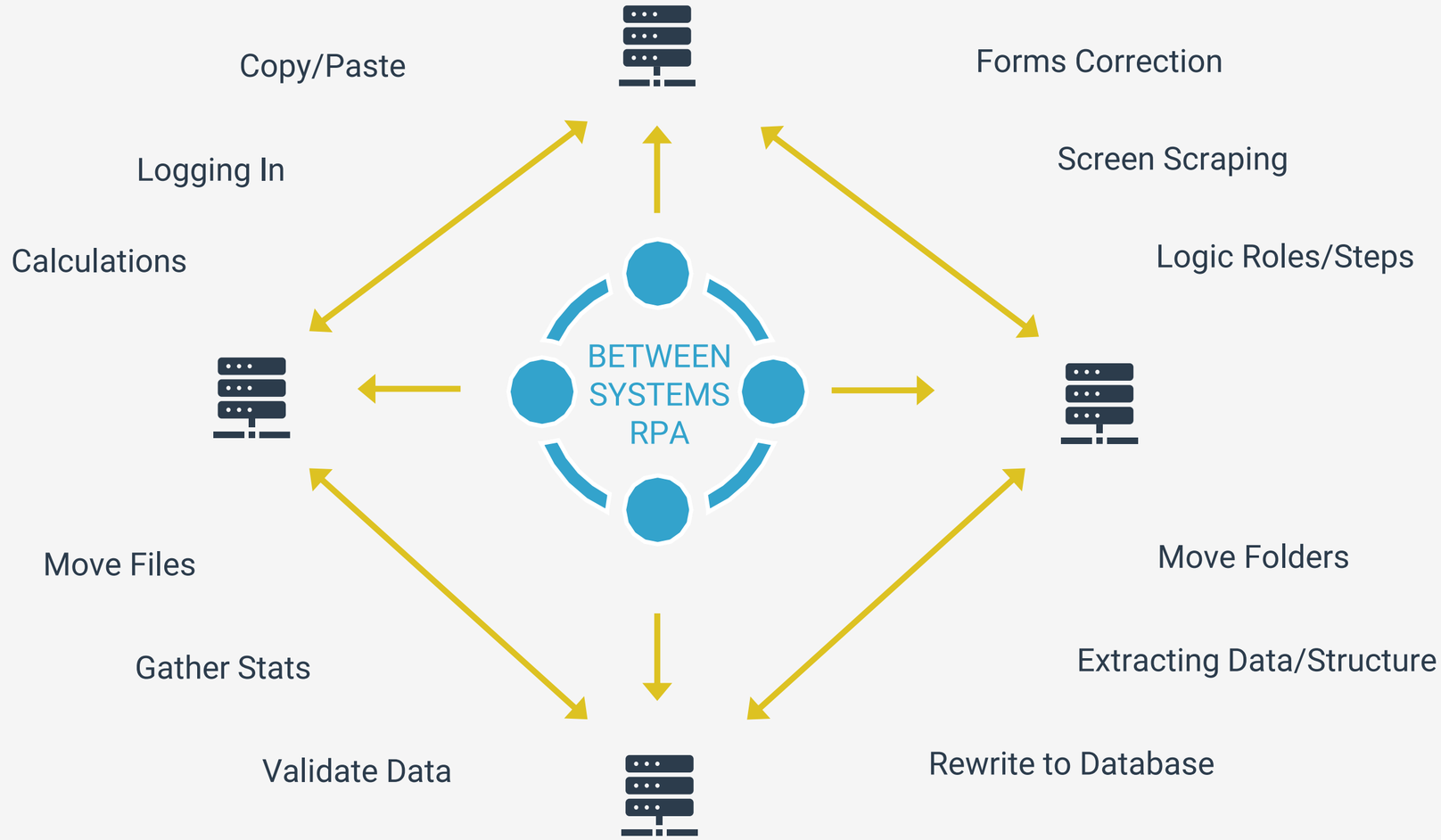
- Hierarchy
- Big Data Option

ROBOTIC PROCESS AUTOMATION (RPA)

WHAT CAN IT DO?

- Branding Between Systems
- Automate Tasks Across Environments

- UIPath
- Blue Prism

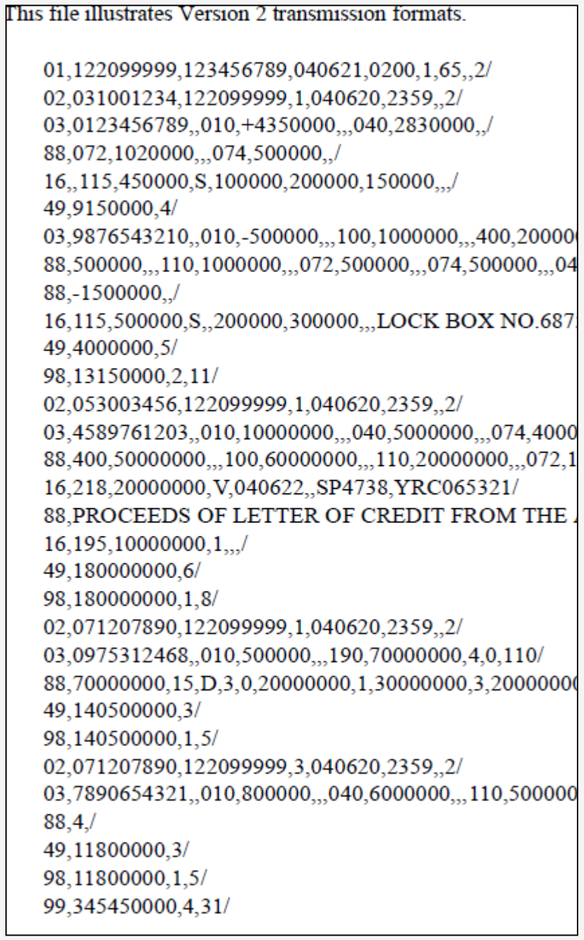


POLL QUESTION

FORMAT XML

EXTENSIBLE MARKUP LANGUAGE

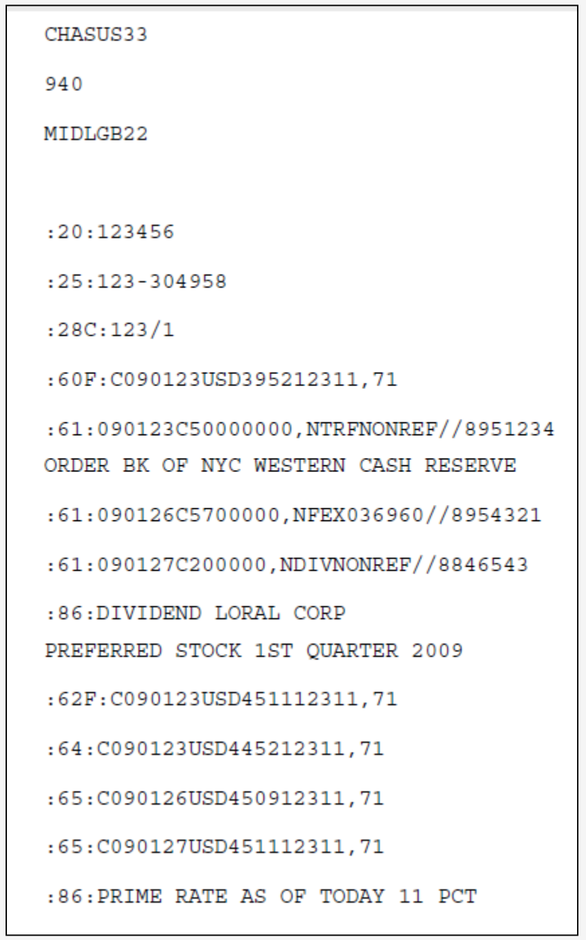
OLD STYLE



```
This file illustrates Version 2 transmission formats.

01,122099999,123456789,040621,0200,1,65,,2/
02,031001234,122099999,1,040620,2359,,2/
03,0123456789,,010,+4350000,,,040,2830000,,/
88,072,1020000,,,074,500000,,/
16,,115,450000,S,100000,200000,150000,,,/
49,9150000,4/
03,9876543210,,010,-500000,,,100,1000000,,,400,20000
88,500000,,,110,1000000,,,072,500000,,,074,500000,,,04
88,-1500000,,/
16,115,500000,S,,200000,300000,,,LOCK BOX NO.687
49,4000000,5/
98,13150000,2,11/
02,053003456,122099999,1,040620,2359,,2/
03,4589761203,,010,10000000,,,040,5000000,,,074,4000
88,400,50000000,,,100,60000000,,,110,20000000,,,072,1
16,218,20000000,V,040622,,SP4738,YRC065321/
88,PROCEEDS OF LETTER OF CREDIT FROM THE
16,195,10000000,1,,,/
49,180000000,6/
98,180000000,1,8/
02,071207890,122099999,1,040620,2359,,2/
03,0975312468,,010,500000,,,190,70000000,4,0,110/
88,70000000,15,D,3,0,20000000,1,30000000,3,2000000
49,140500000,3/
98,140500000,1,5/
02,071207890,122099999,3,040620,2359,,2/
03,7890654321,,010,800000,,,040,6000000,,,110,500000
88,4,/
49,11800000,3/
98,11800000,1,5/
99,345450000,4,31/
```

BAI



```
CHASUS33

940

MIDLGB22



:20:123456

:25:123-304958

:28C:123/1

:60F:C090123USD395212311,71

:61:090123C50000000,NTRFNONREF//8951234
ORDER BK OF NYC WESTERN CASH RESERVE

:61:090126C5700000,NFEX036960//8954321

:61:090127C200000,NDIVNONREF//8846543

:86:DIVIDEND LORAL CORP
PREFERRED STOCK 1ST QUARTER 2009

:62F:C090123USD451112311,71

:64:C090123USD445212311,71

:65:C090126USD450912311,71

:65:C090127USD451112311,71

:86:PRIME RATE AS OF TODAY 11 PCT
```

MT940

NEW STYLE

```
- <GrpHdr>
    <MsgId>2012-12-28-21.57.10.212988</Msg
    <CreDtTm>2012-12-28T20:57:10Z</CreDtTr
  + <MsgPgntn>
  </GrpHdr>
- <Stmt>
    <Id>2012-12-28-21.57.08.985714</Id>
    <ElctrncSeqNb>512</ElctrncSeqNb>
    <CreDtTm>2012-12-28T20:57:08Z</CreDtTr
  - <Acct>
    - <Id>
      - <Othr>
          <Id>50070010/98765430000</
        </Othr>
      </Id>
      <Ccy>EUR</Ccy>
    - <Ownr>
        <Nm>Example Customer</Nm>
      </Ownr>
    - <Svcr>
      + <FinInstnId>
      </Svcr>
  </Acct>
- <Bal>
  - <Tp>
    - <CdOrPrtry>
        <Cd>CLAV</Cd>
      </CdOrPrtry>
    </Tp>
    <Amt Ccy="EUR">2856200.15</Amt>
    <CdtDbtInd>CRDT</CdtDbtInd>
  - <Dt>
      <Dt>2012-12-28</Dt>
    </Dt>
  </Bal>
- <Bal>
```

CAMT (XML)

WHY XML

IF IT ISN’T BROKEN…

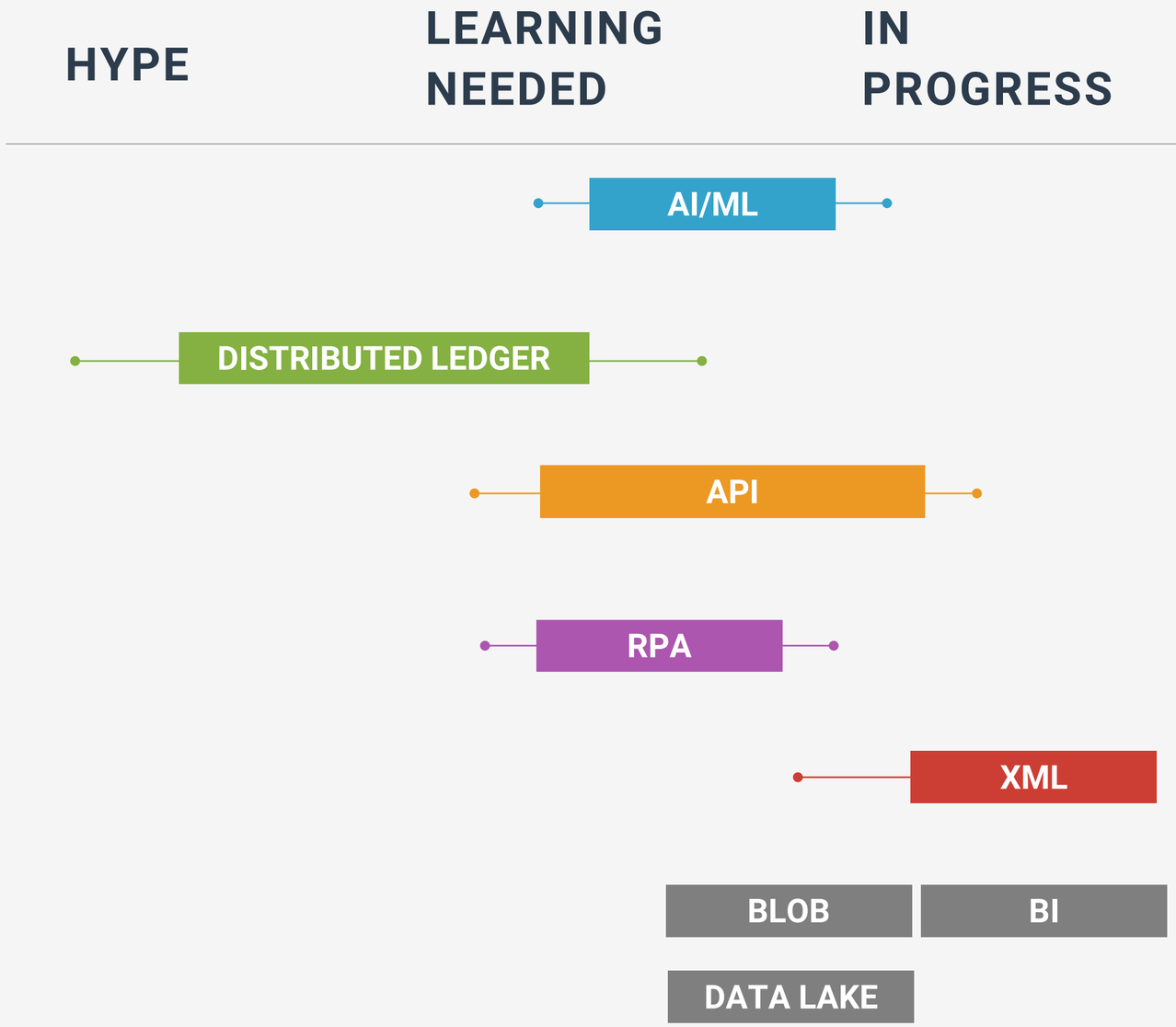
Would you buy a bag phone today?

Flexibility – Enriched Data

What should you require?

Banks? Tech Providers? Positioning

POSITION IN TREASURY



- Example/deploy in system
- Monitor
- Check in/tech vendor
- Assign person
- Primary option going forward
- Learn
- Replace reporting
- Leverage BI resources in firm

WHAT IS THE IMPACT TO US?

DATA, PEOPLE AND OUR TECHNOLOGY STACK

Big Data / Data Analytics

How we look at data

Democratization of Treasury Tech

The availability to the resources

People Who Can Use the New Tools

Growing the team's ability

Leads to Different Views of the Tech Stack of Finance

- **Accounting**
- **Treasury**
- **AP/AR**

Having access to what they want to know, when they want to know it

POLL QUESTION

KEY TAKEAWAYS

INVENTORY THE OPPORTUNITIES

- What is on your radar?
- What are others looking at?
- What are others using? Piloting?

PRIORITIZE

- How do the various opportunities stack up (vapor vs. real)?
- What is more important?
- Do you have the capacity to test or adopt?

PLAN

- Creating a plan to learn – or become a learning organization
- Identifying timeframes, responsibilities and approach to achieve your objectives.

PROGRESS

- Monitoring and calibrating relevant technology developments
- Advancing your team's learning and facility with tools
- Adopting and expanding the payoff

LET'S CONNECT

DON'T LET THE LEARNING END HERE…
CONTACT US WITH ANY FUTURE QUESTIONS

Thank you for your interest in this presentation and for allowing us to support you in your professional development. Strategic Treasurer and our partners believe in the value of continued education and are committed to providing quality resources that keep you well informed.

STRATEGIC TREASURER

Craig Jeffery,
Founder & Managing Partner

craig@strategictreasurer.com

https://www.linkedin.com/in/strategictreasurer/

Join the Treasury Group on LinkedIn and connect with 7,000+ treasury professionals.
https://www.linkedin.com/groups/4221375/

SHARE YOUR THOUGHTS