



## Information Technology for Professionals

## Disclaimer

- ▶ Software/Companies/Websites displayed do not construe as an endorsement.
- ▶ Clickable Hyper-links are given on Logos wherever possible for delegates to explore further and evaluate.
- ▶ Alternatives may be available. Explore all options and use self Professional Judgement before taking an decision.
- ▶ The views expressed are personal and solely for academic purpose.
- ▶ Presenter, Firm and Organisers are not responsible for performance/non-performance of any product / service.

“Take a horse!”  
they said,

“It will  
be  
faster!”  
they  
said





**What are the Challenges faced?**

**Which Areas in CA Practice can be Automated?**

## What is Automation?

- ▶ Automation is the creation and application of technologies to produce and deliver goods and services with minimal human intervention.
- ▶ Automation is the use of technology to perform tasks with reduced human assistance.

# Beneficial Schemes for ICAI Members

[Note: All Logos are hyperlinked. Click on respective Logo to explore](#)

ICAI - The Institute of Chartered Accountants of India

icaai.org/new\_post.html?post\_id=8848

NeSL National E-Governance Services Ltd. Softwarewares

HOME OVERVIEW COMMITTEES MEMBERS STUDENTS XBRL SOLUTIONS RESOURCES SERVICES EXPRESS TDS

- Arrangement for XBRL software Practitioners & CA Firms
- Arrangement GST Annual Return Software for Members in Practice/CA Firms
- TDS Software : An initiative of the Committee for Members in Practice (CMP)
- Access to NeSL IU for Audit: An initiative of the Committee for Members in Practice (CMP)
- Access to Probe42 platform: An initiative of the Committee for Members in Practice (CMP)
- Arrangement GST Software for Members in Practice from Microvista Technologies
- Arrangement for XBRL Software for Members in Practice from Microvista Technologies
- Arrangement for Research map Software : An initiative of the Committee for Members in Practice (CMP), ICAI
- Arrangement for Zoho Books, a GST Compliant Accounting Software: An initiative of the Committee for Members in Practice (CMP), ICAI
- Arrangement for Automating Account Confirmations and Reconciliation Software: An initiative of the Committee for Members in Practice (CMP), ICAI
- Arrangement for Count Magic software: An initiative of the Committee for Members in Practice (CMP), ICAI
- Arrangement for Simplify Practice Management Software: An initiative of the Committee for Members in Practice (CMP), ICAI
- Integrated GRC Product Suit Software'- RuleZbook, Audit Management, Practice Management, Legal Compliance Management, Legal and Compliance Audit Utility, Board and Secretarial Compliances, Payroll and Labour Compliances: An arrangement by Committee for Members in Practice
- Papilio Software for the Practitioners: An arrangement made by the Committee for Members in Practice (CMP), ICAI
- Arrangement for Tally Accounting software Practitioners & CA Firms: An initiative of the Committee for Capacity Building Members in Practice (CCBMP), ICAI
- Arrangement for Eff Factor Software Practitioners & CA Firms: An initiative of the Committee for Capacity Building Members in Practice (CCBMP), ICAI
- Arrangement of the CORDL Practice Management software for the CA Firms of ICAI (with FRN)/ Practising Members of ICAI
- Arrangement All-in-One accounting' software: An initiative of the Committee for Capacity Building Members in Practice (CCBMP), ICAI



The Institute of Chartered Accountants of India

# Beneficial Schemes for ICAI Members - CMP Benefits (1/3)

## Software Products



Practice Management Software for CA Practitioners & CA Firms  
(Free of Cost for Members of ICAI)



RuleZbook

Integrated GRC Product Suit Software



SIMPLIFY PRACTICE  
WE MAKE WORK EASY



Simplify Practice Management Software:  
An initiative of the Committee for Members in Practice (CMP)

New



Arrangement GST Annual Return Software for Members in Practice/CA Firms



The language of business



Arrangement All-in-One accounting software



EFF FACTOR



Arrangement for Eff Factor Software Practitioners & CA Firms

## Beneficial Schemes for ICAI Members - CMP Benefits (2/3)



TDS Software : An initiative of the Committee for Members in Practice (CMP)

**CORDL**



Arrangement of the CORDL Practice Management software for the CA Firms of ICAI (with FRN)/ Practising Members of ICAI



Research map Software : An initiative of the Committee for Members in Practice (CMP), ICAI



**FIRMWAY**

Automating Confirmation & Reconciliation



Automating Account Confirmations and Reconciliation Software: An initiative of the Committee for Members in Practice (CMP)



GST Software : An initiative of the Committee for Members in Practice (CMP)



**ZOHO**



Zoho Accounting Software: An initiative of the Committee for Members in Practice (CMP)

**Count Magic**



Count Magic software: An initiative of the Committee for Members in Practice (CMP)

**NeSL**<sup>®</sup>  
National E-Governance Services Ltd.



Access to NeSL IU for Audit: An initiative of the Committee for Members in Practice (CMP)

**Probe**



Access to Probe42 platform: An initiative of the Committee for Members in Practice (CMP)



# Beneficial Schemes for ICAI Members - CMP Benefits (3/3)

cmpbenefits.icai.org



The Institute of Chartered Accountants of India

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**MICROVISTA**  
TECHNOLOGIES



Arrangement GST Software for Members in Practice from Microvista Technologies

Arrangement for XBRL Software for Members in Practice from Microvista Technologies



TallyPrime



Tally Software Solutions

**Quick Heal**

*Security Simplified*



Papilio



Papilio Software for the Practitioners



**KDK**  
SOFTWARE

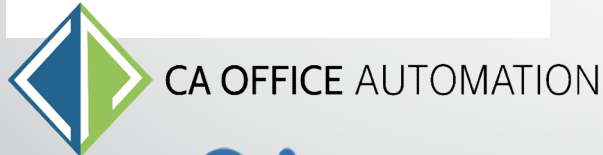
Arrangement for XBRL software Practitioners & CA Firms



Antivirus Protection Facility



# Office Practice Management Solution



*Note: All Logos are hyperlinked.  
Click on respective Logo to  
explore*


Home x +

cacloud.ca.in

The Institute of Chartered Accountants of India (Setup by an Act of Parliament)

Home Modules Video Tutorials Training Schedule Support Technical Help Desk Contact


Register Here CA CLOUD



### Task Management Module

An effective auto allocation and reporting to streamline processes.


[Read More →](#)



### Document Management Module

Paperless office concept to keep and avail documents smartly.


[Read More →](#)



### Account Management Module

An advance billing management to manage your accounts.


[Read More →](#)



### Client Management Module

Client wise login system to manage and track information for both.


[Read More →](#)



### Communication Management Module

Different communication channels with auto alerts.

[Read More →](#)



### Employee Management Module

Effortlessly manage your employee work allocations & reporting.

[Read More →](#)

Jamku Portal - IT, GST, TDS

portal.jamku.app

Jamku Portal  
IT, GST, TDS

PRICING SIGNUP/ LOGIN

New Update available, click on reload button to update. Reload Close

# Income Tax, GST, TDS Notices, Demand, Proceeding, Returns

Jamku Portal is compliance tracking software for automated data fetching from Income tax, GST, TDS (Traces) portal.

The diagram illustrates the data integration process. A central laptop icon labeled 'JAMKU' is connected by arrows to three external portals: 'Income Tax' (with the Income Tax Department logo), 'GST' (with the GST logo), and 'TDS Traces' (with the TDS logo). This indicates that the Jamku Portal software automatically fetches compliance data from these government portals.

# Audit Confirmation

ICAI Empaneled software to increase compliance to SA:505 External Confirmation

[Request Demo](#)



Audit Tracker



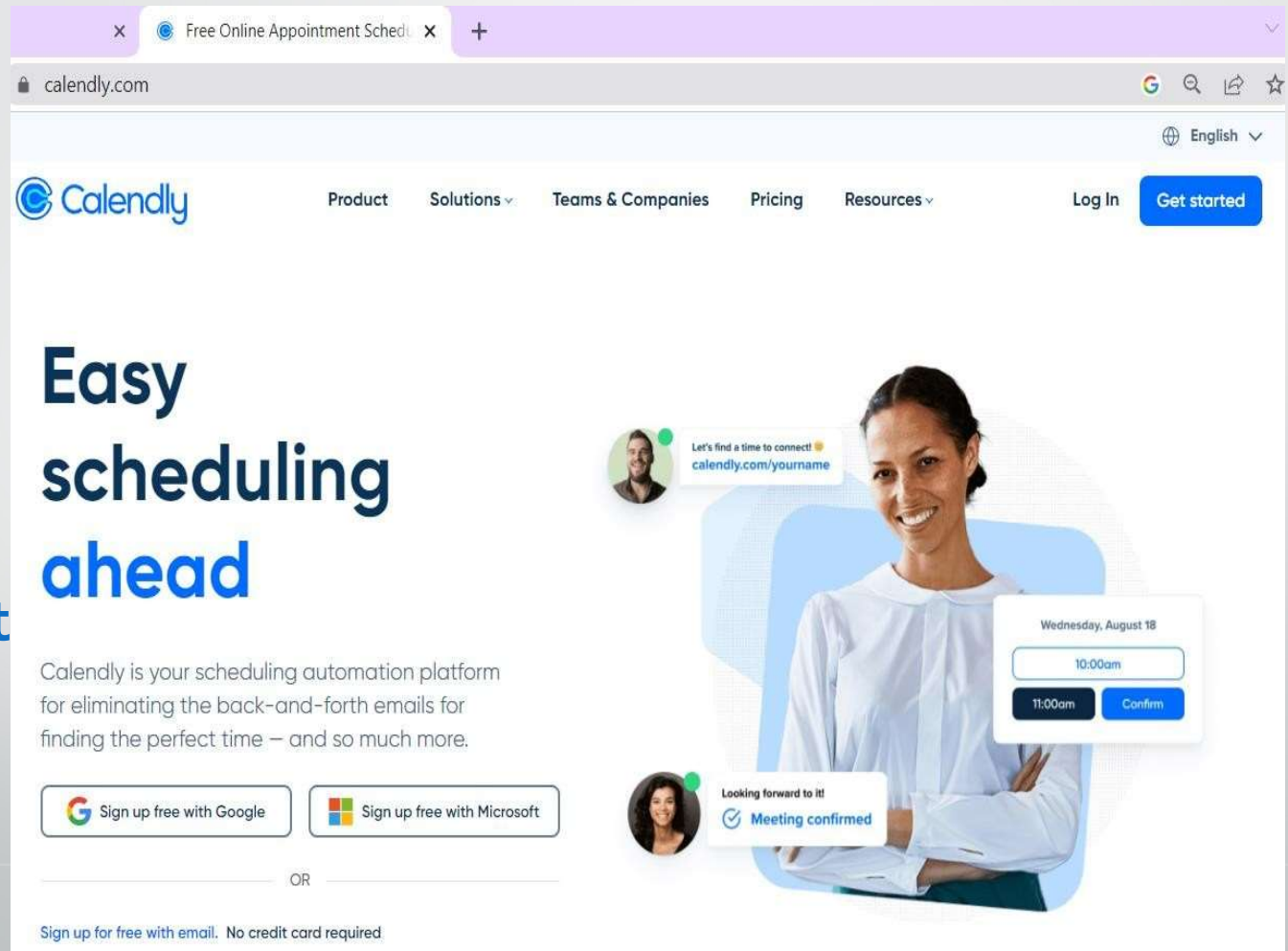
Identify Fraud



Verify Account



# Calendly for Automation of Appointment Scheduling



The screenshot shows the Calendly website homepage. The browser address bar displays "calendly.com". The navigation menu includes "Product", "Solutions", "Teams & Companies", "Pricing", "Resources", "Log In", and a "Get started" button. The main heading is "Easy scheduling ahead". Below this, a sub-headline reads: "Calendly is your scheduling automation platform for eliminating the back-and-forth emails for finding the perfect time – and so much more." There are two buttons for signing up: "Sign up free with Google" and "Sign up free with Microsoft". Below these is an "OR" separator and a link: "Sign up for free with email. No credit card required". On the right side, there is a large image of a smiling woman with several floating notification bubbles. One bubble says "Let's find a time to connect calendly.com/yourname". Another bubble says "Looking forward to it Meeting confirmed". A third bubble shows a calendar snippet for "Wednesday, August 18" with a time slot of "10:00am" and a "Confirm" button.

Free Online Appointment Schedul

calendly.com

English

Calendly

Product Solutions Teams & Companies Pricing Resources Log In Get started

## Easy scheduling ahead

Calendly is your scheduling automation platform for eliminating the back-and-forth emails for finding the perfect time – and so much more.

Sign up free with Google Sign up free with Microsoft

OR

Sign up for free with email. No credit card required

Let's find a time to connect  
calendly.com/yourname

Looking forward to it  
Meeting confirmed

Wednesday, August 18  
10:00am  
11:00am Confirm


# Connect your Banking in





The screenshot shows the Intuit QuickBooks interface for a user named 'INTUITTEST - KS'. The 'Banking' tab is selected, and the 'Intuit' account is highlighted with a red arrow. Below the account list, a table of transactions is visible, with a red T-shaped cursor over the first row. The table has columns for 'CHECK NO.', 'PAYEE', and 'AMOUNT'.

CHECK NO.	PAYEE	AMOUNT ▲
01/17/2017		-\$156.44
7 00023125 IGA #4...		-\$102.67
01/01/2017	DBT CRD 2033 12/29/16 00023125 IGA #4...	-\$99.45
01/13/2017	DBT CRD 2033 01/09/17 00023125 IGA #4...	-\$88.39

# Connect your Banking in



Wells Fargo Bank

Test123XXXXX0923

**\$1,359.00**

Amount in ZohoBooks

**\$44.78**

Amount in Bank

4

Uncategorized Transactions

Date	Details	Deposits	Withdrawals
11.01.2014	DAG-333 DESC	\$465.00	
02.01.2014	91398 CHECK # xx0000 Payee : Check		\$1,000.00
19.01.2012	Ref-9872 Insurance payment Payee : Joseph		\$4,000.00
14.01.2012	Ref-2134 Electronics purchase Payee : Smith		\$7,500.00

Show excluded transactions

Committee for Members in Practice  
The Institute of Chartered Accountants of India (ICAI)  
(Set up by an Act of Parliament)

**Arrangement of  
Accounting Software  
for ICAI Members**

A GST-compliant, unified digital financial platform to oversee your accounting, expense, and payroll functions

Zoho Books	Zoho Expense	Zoho Payroll
<ul style="list-style-type: none"> <li>➤ Automatic bank feeds</li> <li>➤ Complete inventory tracking</li> <li>➤ Recurring expenses and easy billing management</li> <li>➤ 50+ insightful reports and advanced analytics</li> </ul>	<ul style="list-style-type: none"> <li>➤ Autoscan receipts in 10+ languages</li> <li>➤ Automatic workflow approvals for expenses</li> <li>➤ Dedicated audit trail report and effective expense auditing</li> <li>➤ Sync expense data automatically with accounting software or Zoho Books</li> </ul>	<ul style="list-style-type: none"> <li>➤ Automatic payroll calculations</li> <li>➤ Straightforward statutory compliance (PF, ESI, IT, LWF, PT, Bonus)</li> <li>➤ Collect professional tax accurately and prepare employees to file IT returns</li> <li>➤ Automatic recording of payroll expenses and tax liabilities</li> </ul>

Free of Cost for 3 years from the date of activation  
(Elite Plan for Accounting, Payroll upto 25 employees,  
Expenses upto 10 users)

For further details, visit <https://cmpbenefits.icai.org/>  
For any clarification, email at [cmp@icai.in](mailto:cmp@icai.in)



# ZOHO for Automation

## Zoho Books

- ▶ **Automatic bank feeds**
- ▶ Complete inventory tracking
- ▶ Recurring expenses and easy billing management
- ▶ 50+ insightful reports and advanced analytics

## Zoho Expense

- ▶ **Autoscan receipts in 10+ languages**
- ▶ **Automatic workflow approvals for expenses**
- ▶ Dedicated audit trail report and effective expense auditing
- ▶ Sync expense data **automatically** with accounting software or Zoho Books

## Zoho Payroll

- ▶ **Automatic payroll calculations**
- ▶ Straightforward statutory compliance (PF, ESI, IT, LWF, PT, Bonus)
- ▶ Collect professional tax accurately and prepare employees to file IT returns
- ▶ **Automatic recording of payroll expenses and tax liabilities**

# ChatGPT - Open AI for Automation

chat.openai.com/chat



Please draft request for condonation of delay in filing Income Tax Return for AY 2022-23 for ABC Co-operative Housing Society Ltd., Mumbai



Dear Sir/Madam,



I am writing on behalf of ABC Co-operative Housing Society Ltd., Mumbai, to request condonation of delay in filing our Income Tax Return for the Assessment Year 2022-23.

Due to unforeseen circumstances and unavoidable reasons, we were unable to file our Income Tax Return on time. However, we are now ready to file the same, and we request your kind consideration and granting of condonation for the delay.

We understand the importance of compliance with tax regulations, and we assure you that we will do our best to ensure timely filing of our returns in the future. We request you to kindly grant us the necessary condonation of delay in filing our Income Tax Return for the Assessment Year 2022-23.

Thank you for your understanding and cooperation.

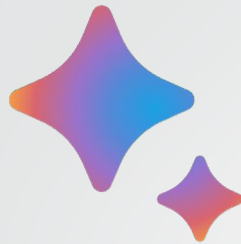
Sincerely,

[Name and Designation]

ABC Co-operative Housing Society Ltd.



# Google Bard for Automation



## Bard is an experiment

As you try Bard, please remember:

### **Bard will not always get it right**

Bard may give inaccurate or inappropriate responses. When in doubt, use the "Google it" button to check Bard's responses.

### **Bard will get better with your feedback**

Please rate responses and flag anything that may be offensive or unsafe.



Which is the best constitution for formation of business in India?



The best constitution for formation of business in India depends on a number of factors, including the size and nature of the business, the number of owners, and the desired level of liability protection. Some of the most common types of business constitutions in India include:

- **Proprietorship:** A proprietorship is the simplest type of business constitution. It is owned by a single individual and there is no legal distinction between the business and the owner. This means that the owner is personally liable for all debts and obligations of the business.
- **Partnership:** A partnership is a business owned by two or more people. The partners share the profits and losses of the business, and they are all personally liable for its debts and obligations.
- **Limited liability company (LLC):** An LLC is a hybrid business structure that combines the features of a partnership and a corporation. The owners of an LLC are called members, and they are not personally liable for the debts and obligations of the business, up to the amount of their investment.
- **Private limited company:** A private limited company is a type of corporation that is owned by a limited number of shareholders. The shareholders of a private limited company are not personally liable for the debts and obligations of the business, except to the extent of their

Enter a prompt here



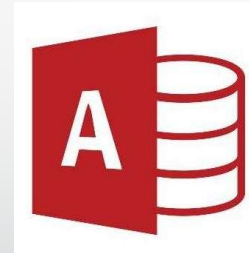
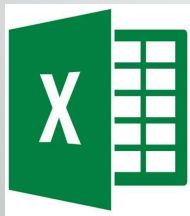
Bard may display inaccurate or offensive information that doesn't represent Google's views.

*“If I had six hours to  
chop down a tree,  
I’d spend the first  
four hours*

- Abraham Lincoln



# Tools for Analytics





Please find link to install IDEA 10.4

In case of compatibility issues with IDEA 10.4, you may install IDEA 10.2 or IDEA 10.1 or IDEA 9.2 or IDEA 9.1 Installation links

are as follows:

IDEA 10.4: [https://drive.google.com/file/d/1T16\\_boKYXmkPaTiWFk6NPfP\\_sJmsY4X6](https://drive.google.com/file/d/1T16_boKYXmkPaTiWFk6NPfP_sJmsY4X6)

IDEA 10.2: <https://drive.google.com/file/d/1vGZS7yRuy1Dd9WQb29yFfe2ry0Pd0AM>

IDEA 10.1: <https://drive.google.com/file/d/1avlNeMseHcej2JBFTwclcoSpRkBM0d14>

IDEA 9.2: <https://drive.google.com/file/d/1oiunOPn3hUQKMT3Sfrv-PavuuXS4sqSe>

IDEA 9.1: <https://drive.google.com/file/d/1KrHFru1yH8OIJ1EviceXsRNOQmqStKH8>

While installing IDEA Software when asked for License Key, keep it blank and press enter for Demo version (fully functional forever but restricted to 1000 row items).

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# Data and Technology Procure to Pay



**A Overview** **Looking at P2P Process in Details**

Process	1.0 Sourcing & Supplier Selection	2.0 Contract Management	3.0 Procurement Transaction Management	4.0 Accounts Payable Transaction Management	5.0 Vendor Master File Governance	6.0 Supplier & Category Management	7.0 Procurement Governance & Enablement
Sub-Process	1.1 Forecasting & Planning	2.1 Contract Review	3.1 Requesting	4.1 Receiving/ 3-way Match	5.1 Vendor request/due diligence	6.1 Supplier Enablement	7.1 Strategy & Policy
	1.2 Category & Supply Market Analysis	2.2 Contract Creation, Negotiation & Execution	3.2 Bid/Quote Request	4.2 PO Invoice Processing	5.2 Vendor add / Change / archival	6.2 Supplier Performance Mgmt.	7.2 Org Design & Talent Management
	1.3 Sourcing Strategy Development	2.3 Post Award Administration	3.3 Purchase Order Processing	4.3 Non-PO Invoice Processing	5.3 VMF data integrity Management	6.3 Supplier Relationship Management	7.3 Performance Metrics & Reporting
	1.4 Supplier Evaluation & Selection	2.4 Reporting & Analysis	3.4 P-Card Purchasing	4.4 Invoice Hold/Exception Management		6.4 Category Analysis & Enrichment	7.4 Operational Enablement & Infrastructure
	2.5 Capital Projects	3.5 Travel and Entertainment Expense Management	4.5 Payment Processing				



B	Sample Deliverable(s)	Controls Automation Tests – P2P
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Fraud Indicators	Financial Misstatements	Policy Compliance	Trend Indicators	Process Inefficiency
<p>Duplicate Payments</p> <p>-----</p> <p>Suspicious Payment Date</p> <p>-----</p> <p>Suspicious Purchase</p> <p>-----</p> <p>Suspicious Vendors</p> <p>-----</p>	<p>Additional Charges : situations where the ratio of supplemental charges on an invoice (e.g. shipping, handling, tax, etc.) exceeds a specified % or CURR threshold</p> <p>-----</p>	<p>Multiple Vendors</p> <p>Same Bank Account</p> <p>-----</p> <p>Payments to Employees</p> <p>-----</p> <p>Date Sequence</p> <p>-----</p> <p>Payments to Prohibited Vendors</p> <p>-----</p>	<p>PO Aging Analysis</p> <p>-----</p> <p>AP Summary Report</p> <p>-----</p> <p>Vendor / Employee Correlation Report</p> <p>-----</p> <p>PO / Invoice / Payment Correlation Report</p> <p>-----</p>	<p>Discrepancies between related documents via 3way-match (PO &gt; GRN &gt; Invoice)</p> <p>-----</p> <p>Split Purchase Orders</p> <p>-----</p> <p>Split Invoices</p> <p>-----</p> <p>Segregation of duties has been violated</p> <p>-----</p>

B

Sample Deliverable(s)

Benchmarking Charts

Leading Practices		NAM	EU	India, MEA	China, PHO
Process	Automated workflow in place with tracking functionality	Yellow	Grey	Grey	Grey
	Critical vendor list	Grey	Yellow	Yellow	Yellow
	Quality check framework	Blue	Yellow	Grey	Grey
	Aged items follow up	Grey	Grey	Grey	Grey
Policy	No Po No Pay Policy	Grey	Grey	Grey	Grey
	Standard GRIR policy for investigation and clearing	Grey	Grey	Grey	Grey
	Develop standard Debit Balances handling policy	Yellow	Yellow	Yellow	Yellow
	Segregation of Duties at each stage of the process (access restrictions as per roles)	Grey	Grey	Grey	Grey
Technology	Integrated workflow with OCR capabilities	Blue	Grey	Grey	Yellow
	Supplier portal integrated with ERP	Grey	Blue	Blue	Grey
	Workflow to manage the discrepancy resolution with built in reminders and escalation functionalities	Yellow	Yellow	Yellow	Yellow
Op Model	Centre of excellence for invoice processing	Grey	Grey	Grey	Grey
	Robust operating mechanism (decoupling for non language dependent countries)	Yellow	Grey	Grey	Grey
	Visual display /dashboards for performance metrics	Grey	Grey	Grey	Yellow



### Procure to Pay Analysis - Payment Analysis Dashboard

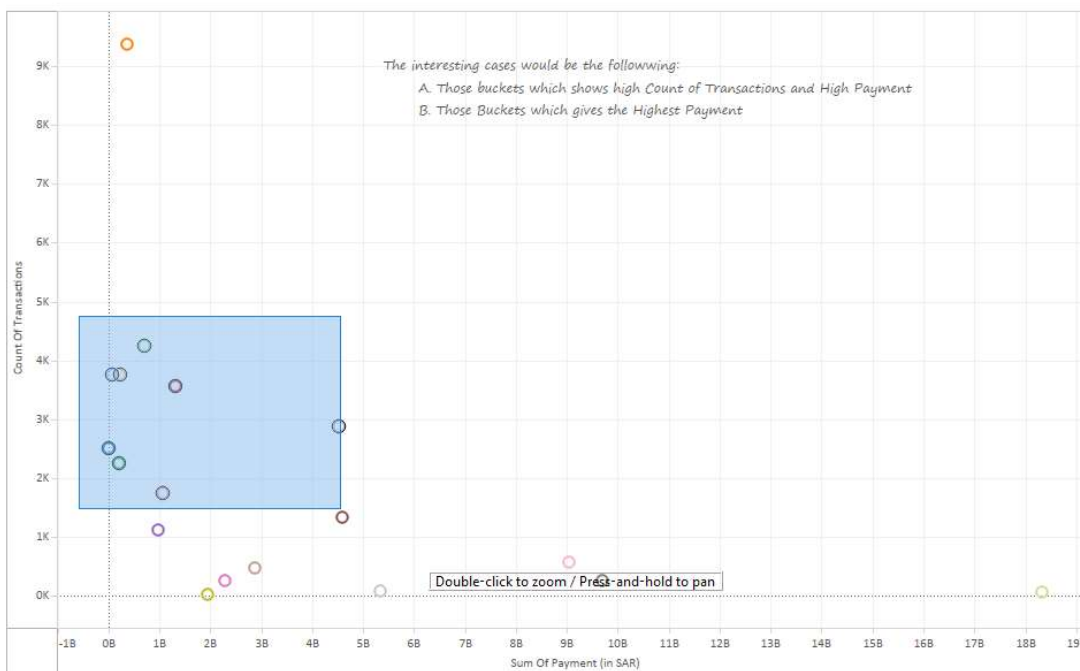
Risk Indicator 1 : Sequence Gap in Payments	Risk Indicator 2 : Payment Stratification - \$'s and Volume	
Risk Indicator 3: Difference between Payment and Invoice	Risk Indicator 4: Payment made in excess of PO value and invoice	
Risk Indicator 5 : Small Dollar Payments	Risk Indicator 6 : Average Days to Pay	Risk Indicator 7 : Holiday Activity
Risk Indicator 8 : Duplicate Payments	Risk Indicator 9 : Multiple Payments – Same Day, Same Vendor	Risk Indicator 10 : Negative value transaction
Risk Indicator 11 : Bank payments to accounts not found in Vendor Master	Risk Indicator 12 : Gap in Sequence of Cheque Number	

*The Payment Analysis Dashboard tries to capture the inefficiencies that exist in the Payment process which can range from weak controls to indication of Fraud or in some cases statistical analysis of data. The objective of the dashboard is to allow the user to take an informed decision.*

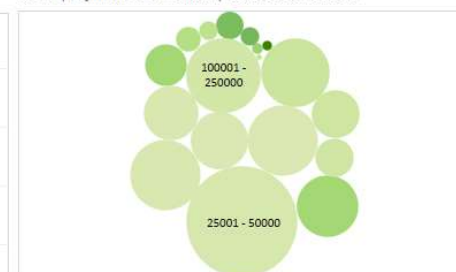
## P2P | Payment Analysis Dashboard

### G6 R2 | Payment Stratification | Dollar and Count

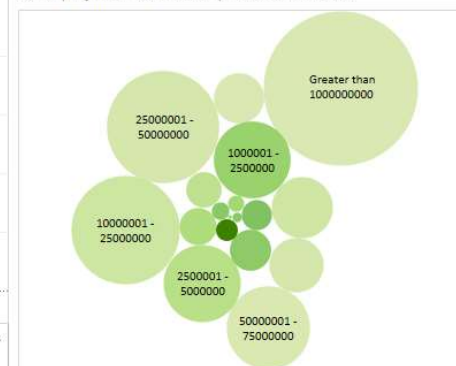
Payment Stratification tells the user where there are major payment happening (both in terms of Value and Volume). The Statistical Analysis provides an immediate understanding of the Payments



### G6 R2 | Payment Stratification | Count Classifications



### G6 R2 | Payment Stratification | Dollar Classifications



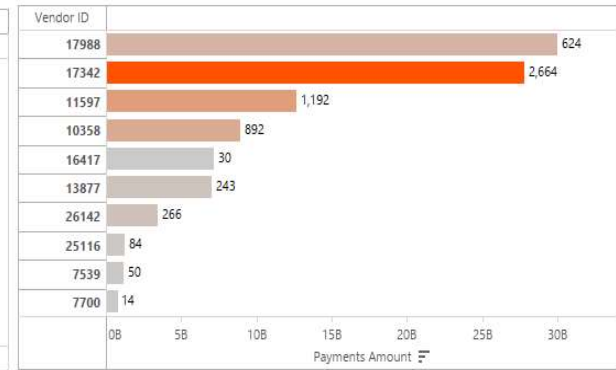
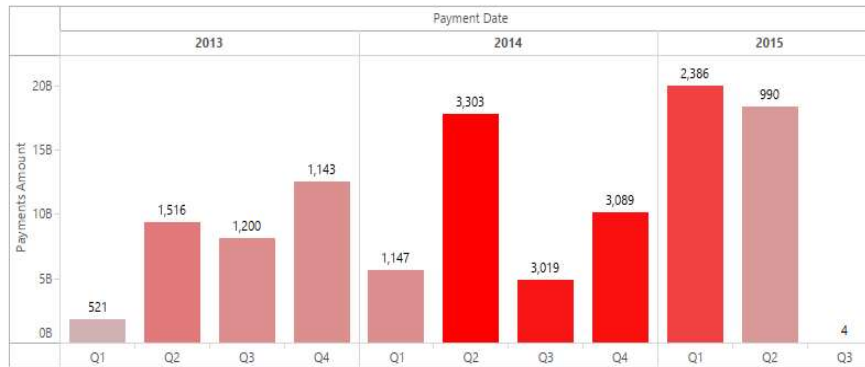
## P2P | Payment Analysis Dashboard

### G6 R8 | Duplicate Payments

Multiple payments which are made to the Same Vendor ID against the same Invoice ID is considered as a Duplicate Payment

The distribution over a period of time helps the user in the analysis of the understanding how much exposure the company has encountered recently and on an ongoing basis

The Top N(10) Vendor analysis allows the user to understand who are the major contributors during the time period



Invoice ID	Vendor ID	Beneficiary Ban..	Beneficiary Name	Payment Status	Bank Transaction Numb..
2191010	13877	البنك السعودي البريطاني	شركة هواوي تكنولوجيز العربية السعودية المحدودة	FORMATTED	572728
2191009	13877	البنك السعودي البريطاني	شركة هواوي تكنولوجيز العربية السعودية المحدودة	FORMATTED	572728
2191006	13877	البنك السعودي البريطاني	شركة هواوي تكنولوجيز العربية السعودية المحدودة	FORMATTED	572728
2191004	13877	البنك السعودي البريطاني	شركة هواوي تكنولوجيز العربية السعودية المحدودة	FORMATTED	572728
2190976	7772	البنك الأهلي التجاري	الشركة التعاونية لائتمانات	FORMATTED	572515
2190967	17342	البنك السعودي البريطاني	فرع شركة أريكسون ايه بي	FORMATTED	572726
2190964	17342	البنك السعودي البريطاني	فرع شركة أريكسون ايه بي	FORMATTED	572726
2190961	17342	البنك السعودي البريطاني	فرع شركة أريكسون ايه بي	FORMATTED	572726



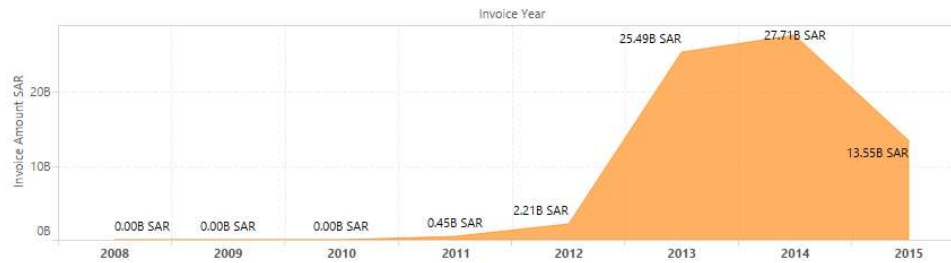
Payments Amount
39,568,224
39,568,224
39,568,224
39,568,224
1,375,496
26,311,761
26,311,761
26,311,761

## P2P | Vendor Analysis Dashboard

### G1 R3 | Vendor Invoice Analysis

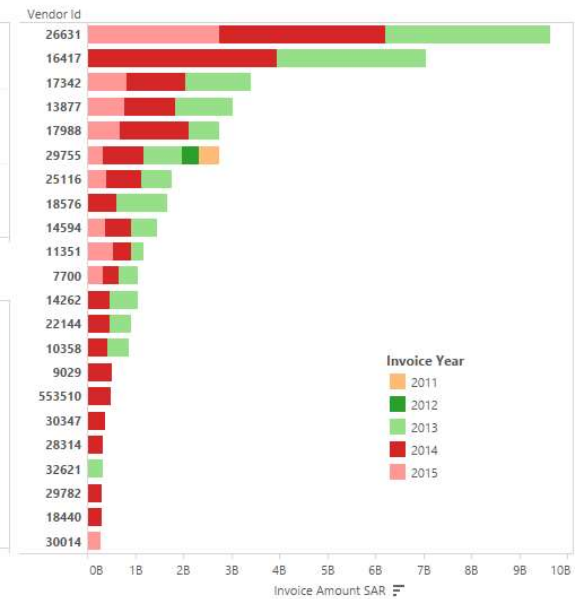
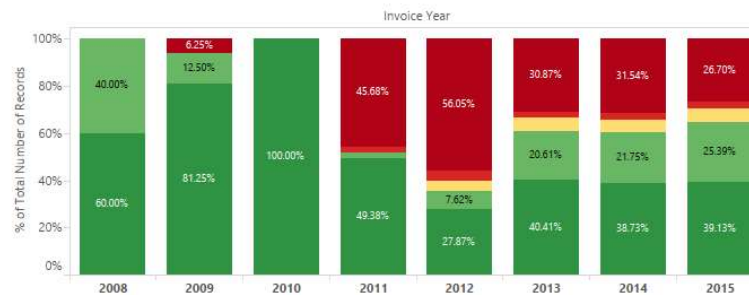
The below graphs capture the payment of the vendors from 2008 till 2015. It also captures data entry errors which shows invoice raised at NULL or 3004. Distribution of the Invoiced amount into different buckets are also shown here

Vendors Over a period of last 5 years is looked at and the vendors with cumulative invoiced amount > SAR 200 Million is arranged in a descending order to provide the user with an analysis of the high claim amounts from the vendor. STC should establish a practice for monitoring these vendors.



The invoice buckets are Very High > SAR 200 K, High > SAR 150 K, Low < SAR 100 K, Very Low < SAR 50 K, and Medium

**Invoice Buckets**  
 Very High Value  
 High Value  
 Medium Value  
 Low Value  
 Very Low Value



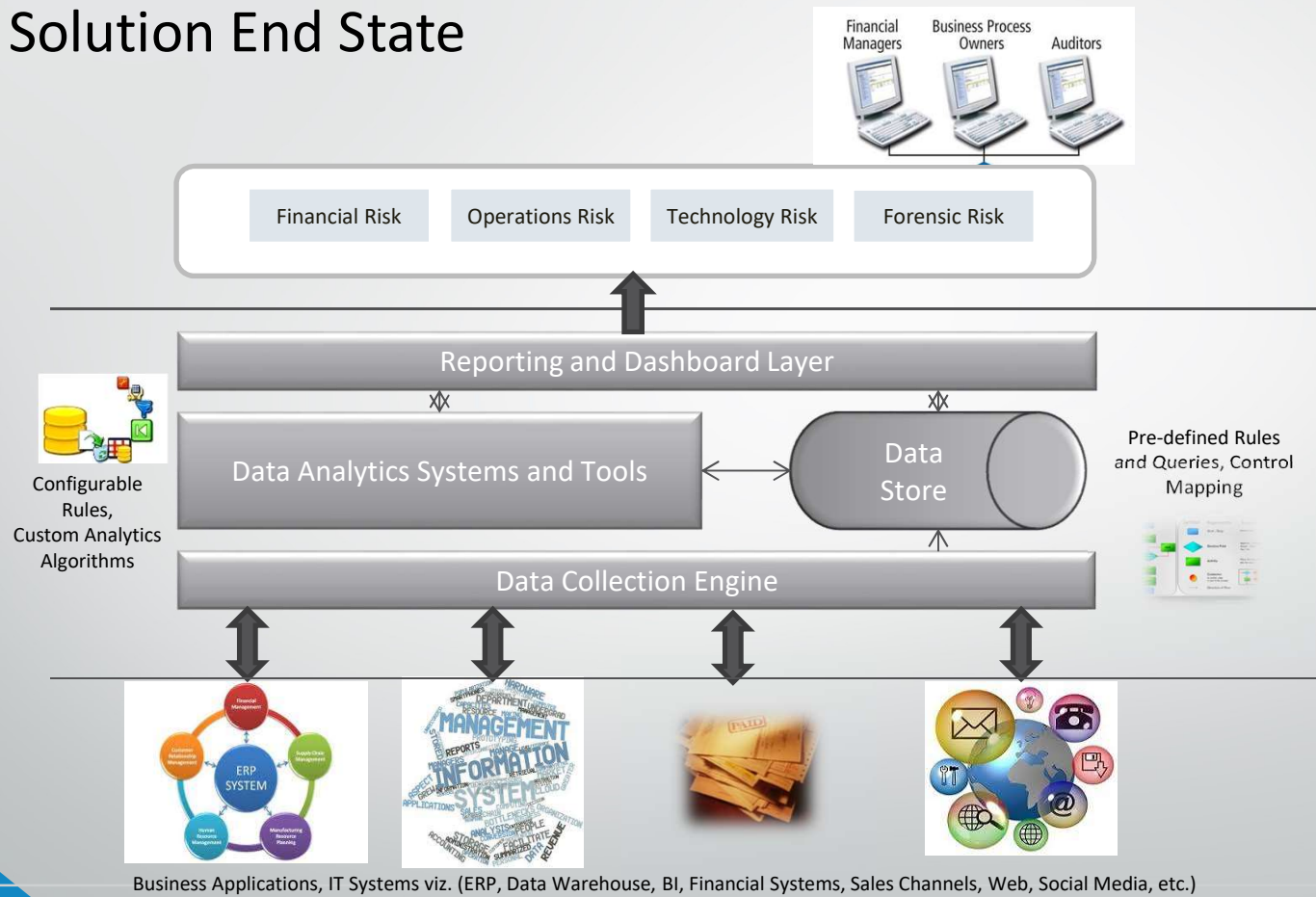
Controls Testing

Analytics

Continuous Monitoring



# Solution End State





# Building Blocks of Continuous Controls Monitoring



## Utility Programs / Productivity Software:

E.g. Spreadsheet, Word Processing, Text Editing, Data Browsing



## Risk and Audit Management Software:

E.g. TeamMate, Protiviti Governance Portal



## Data Management Tools:

E.g. Pentaho, ETL Platforms



## Analytics Tools:

E.g. ACL, IDEA, TeamMate Analytics, ISS CG Solutions, ESG Analytics, Main Data Group



## Advanced Analytics and Statistical Tools:

E.g. R, SPSS, Statistical Sampling & Data Modeling Tools



## Reporting and Dashboard Applications:

E.g. Tableau, Qlikview, Crystal Reports



Reporting & Follow-up

**Dynamic Reporting**

**Data Visualization**

## Quarterly IA Activities



Bahrain



Iraq



Jordan



Kuwait



Lebanon



Saudi Arabia



South Sudan

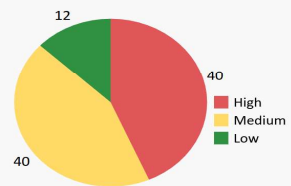


Sudan

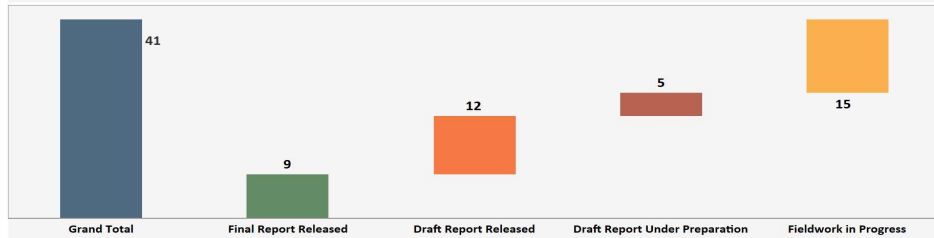


Group

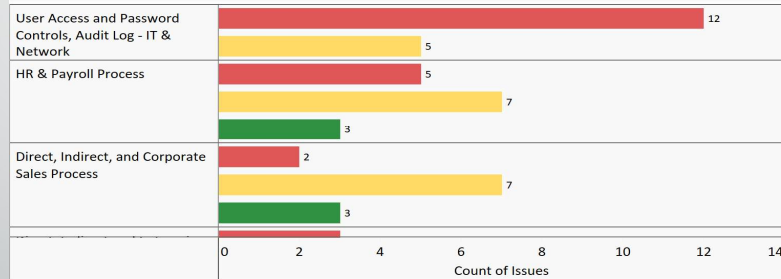
### Distribution of Issues



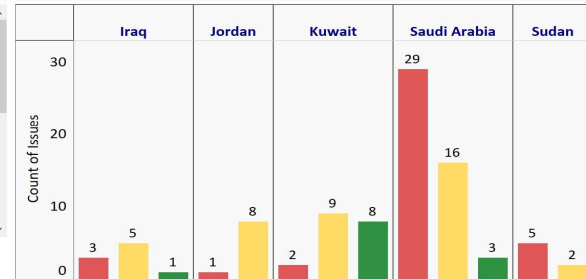
### Audit Status



### Number of Issues by Report



### Distribution of Issues - OpCos



# Quarterly Follow up Update



Bahrain



Iraq



Jordan



Kuwait



Lebanon



Saudi Arabia



Sudan

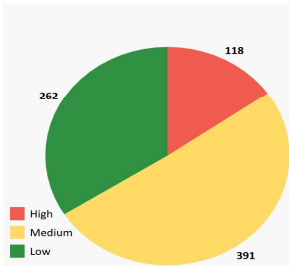


South Sudan

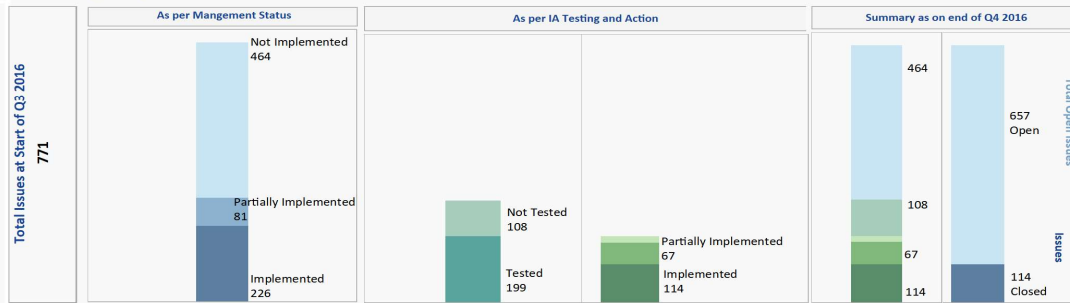


Group

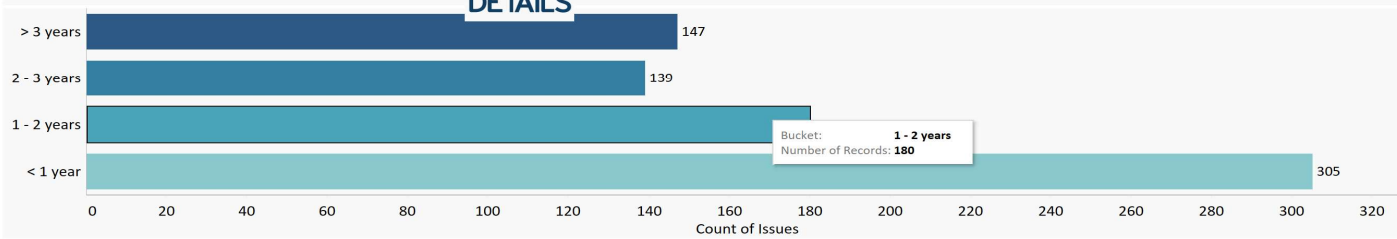
## Issue Rating



## Summary of Open Issues



## Ageing of Open Issues



## Quarterly Follow up Update (Details)



Bahrain



Iraq



Jordan



Kuwait



Lebanon



Saudi Arabia



Sudan



South Sudan



Group

Snapshot of IA Testing		High	Medium	Low	Ageing of High Risk Issues					
Issues due for Implementation in Q4		118	391	262	Ageing of Issues	1 Jan 2017	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Implemented/Partially Implemented as per Management Feedback		51	158	98	Carried Forward	92	70	63	59	56
Implemented/Partially Implemented, Pending IA Testing		18	54	36	Issues due in Q1 2016		26	18	13	11
Tested By Internal Audit		33	104	62	Issues due in Q2 2016			9	6	6
Internal Audit Testing Update	Implemented /removed	12	55	43	Issues due in Q3 2016				10	9
	Partially Implemented	12	42	13	Issues due in Q4 2016					29
	Not Implemented	9	5	4	<b>Grand Total</b>	<b>92</b>	<b>96</b>	<b>90</b>	<b>88</b>	<b>111</b>
<b>Total Open Issues due but not Implemented/ Tested as of 31 Dec 2016</b>		<b>106</b>	<b>336</b>	<b>219</b>	<b>Ageing of Medium Risk Issues</b>					
					Ageing of Issues	1 Jan 2017	Q1 2016	Q2 2016	Q3 2016	Q4 2016
					Carried Forward	329	305	248	231	212
					Issues due in Q1 2016		61	60	50	40
					Issues due in Q2 2016			37	31	28
					Issues due in Q3 2016				43	37
					Issues due in Q4 2016					34
					<b>Grand Total</b>	<b>329</b>	<b>366</b>	<b>345</b>	<b>355</b>	<b>351</b>

Revised Risk Grading(30Sep16):  
Issues Due for implementation in Q4-values: 4

Low

---

Process Walkthrough

**Process Mining**



# Process Mining - Overview

The central process of incoming and outgoing calls is a high volume digital process, which runs through many different IT systems. With root causes to operational inefficiencies

## Tool Offerings



Visualization of 'As-Is' processes through process flows



Extensive filtering and selection options to zoom in on specific cases or process components



Drill-down from a process overview to the lowest level of underlying data



Extensive analysis capabilities with flexible customization of dashboards



Providing data anonymity, applying authorizations different roles and specific data

## Questions Answered

- Uncover inefficiencies, from the start of the customer call coming in to the resolution provided?
- Why did stops and manual rework occur?
- What are the effects on storage and personnel costs?
- Why are there bottlenecks?
- Why is the average handling time going up?

## Tool Benefits



Transparency in process



Continuous process improvement



Fraud Preventions and Compliance support

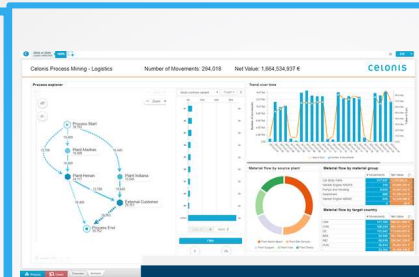
# Process Mining - Benefits





# PROCESS MINING

Celonis Process Mining maps and visualizes processes as they actually occur. From beginning to end, in real time, based on your data, thus ensuring maximum transparency and oversight over your value chain. Celonis offers the most powerful and widely-used Process Mining platform for enterprises. Built with years of experience, partners and hundreds of customers from over 15 industries, it's also the most user-friendly and flexible solution, with cutting edge innovations added with every release.



Get full **transparency** and **efficiency** across all your operations - **In real time.**

Process Cost

- 25%

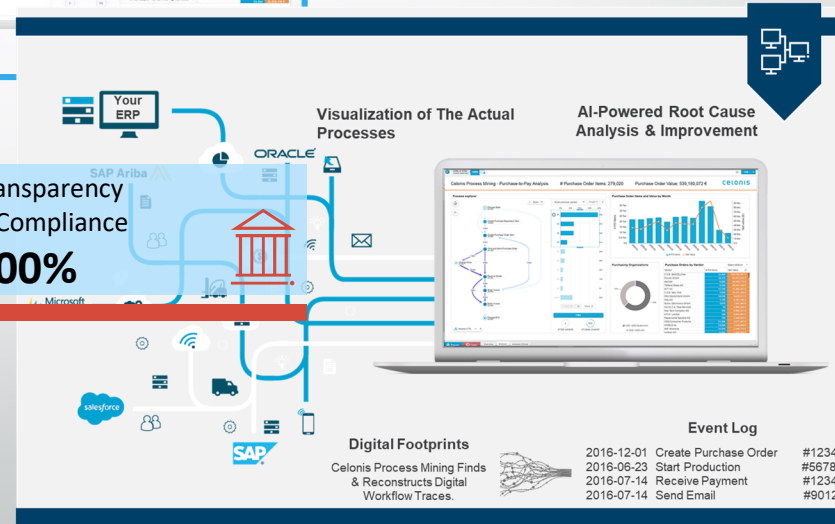


Throughput Times

- 37%



Transparency & Compliance  
**100%**



#### Digital Footprints

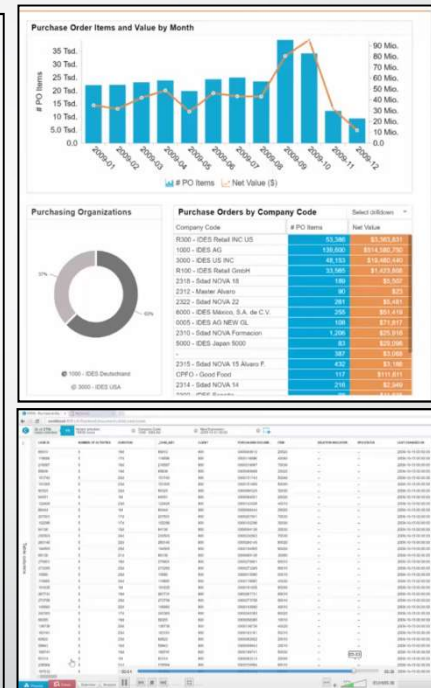
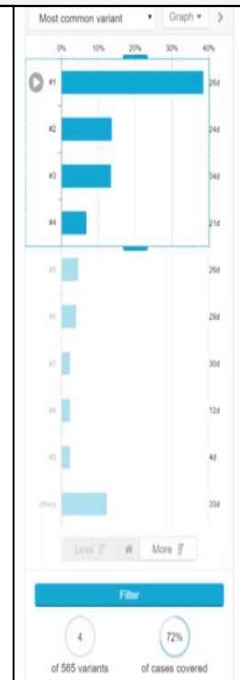
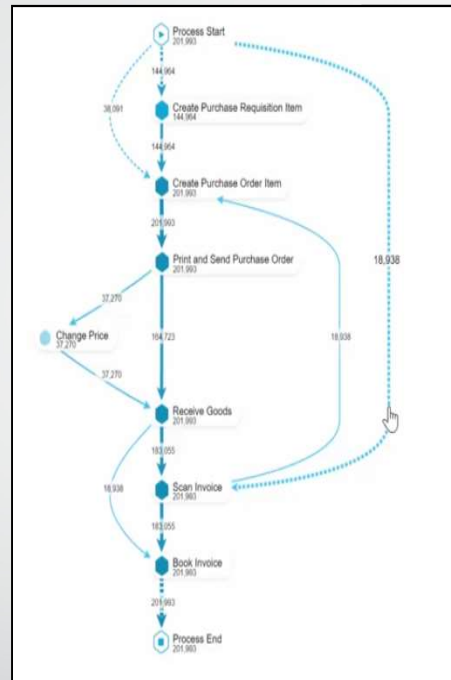
Celonis Process Mining Finds & Reconstructs Digital Workflow Traces.



#### Event Log

2016-12-01	Create Purchase Order	#1234
2016-06-23	Start Production	#5678
2016-07-14	Receive Payment	#1234
2016-07-14	Send Email	#9012

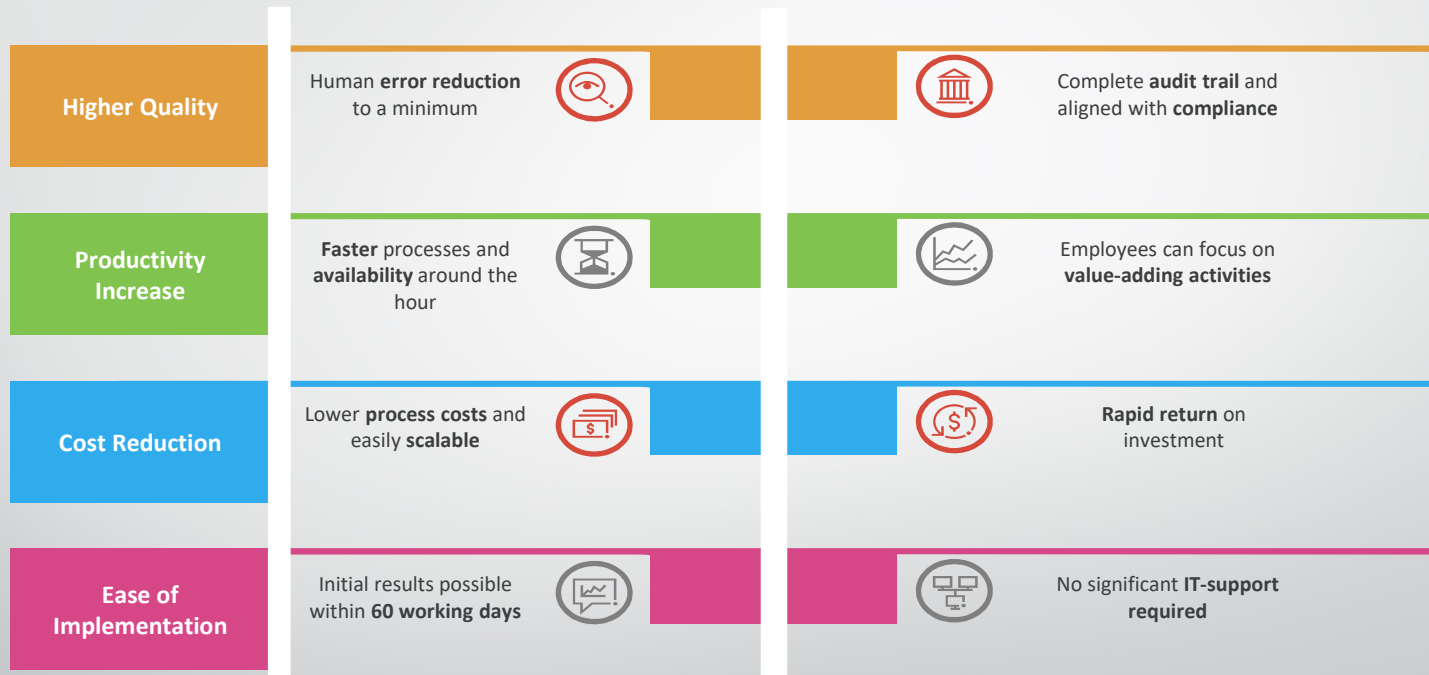
# Process Mining – Delivery Snapshot(s)



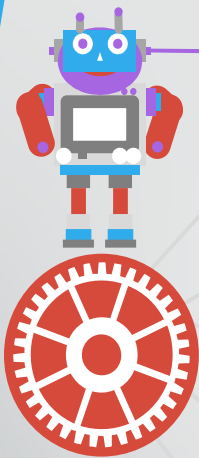


**Robotic Process  
Automation**

# Robotic Process Automation: Why Automate



# Automation with RPA



## Robots

Read and download relevant emails for processing



Centrally store documents in a central repository



Interact with multiple applications, i.e. Email, Shared Drive, ERP, Excel



Securely logged on to ERP, validate and performed data entry



Complete task and logged out of ERP, 1 min equals to 15 min of work for a person



Generate task (invoice) summary report and email to process owner



Assuming 7,000 invoices are to be processed monthly and each invoice requires 15 minutes processing time

**1750**  
HOURS  
via Manual  
Processing



**116**  
HOURS  
via robotic

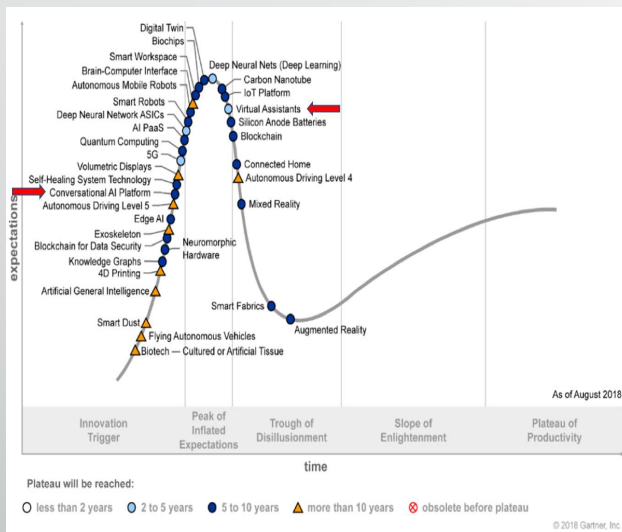


**93%**  
reduction in  
processing time



Over **200** man-day  
saved

# Conversational AI – Overview



**Intelligence** - understand not just the language but also the meaning of what the user is saying.

**Concentrate** on Natural language processing (NLP) and Natural Language Understanding (NLU).

**Mobility** - Embedded into smartphones, smart speakers, cars, fridges, wrist watches, television; it has an increasingly larger scale.

**Variety** - Wider scope and can perform a wide range of tasks, decision making and e-commerce. It can perform activities like sharing jokes, playing music, stock market updates, check facts, do calculations, translate a, locate a parked car, get a ride, unearth what one is looking for from massive numbers of files and even controlling the electronic gadgets in the room.

*Unlike chatbots, AI assistants mature with use and is currently seeing a massive expansion in deployment aided by major technology giants (Google, Apple, Amazon, IBM).*

# Conversational AI – Overview

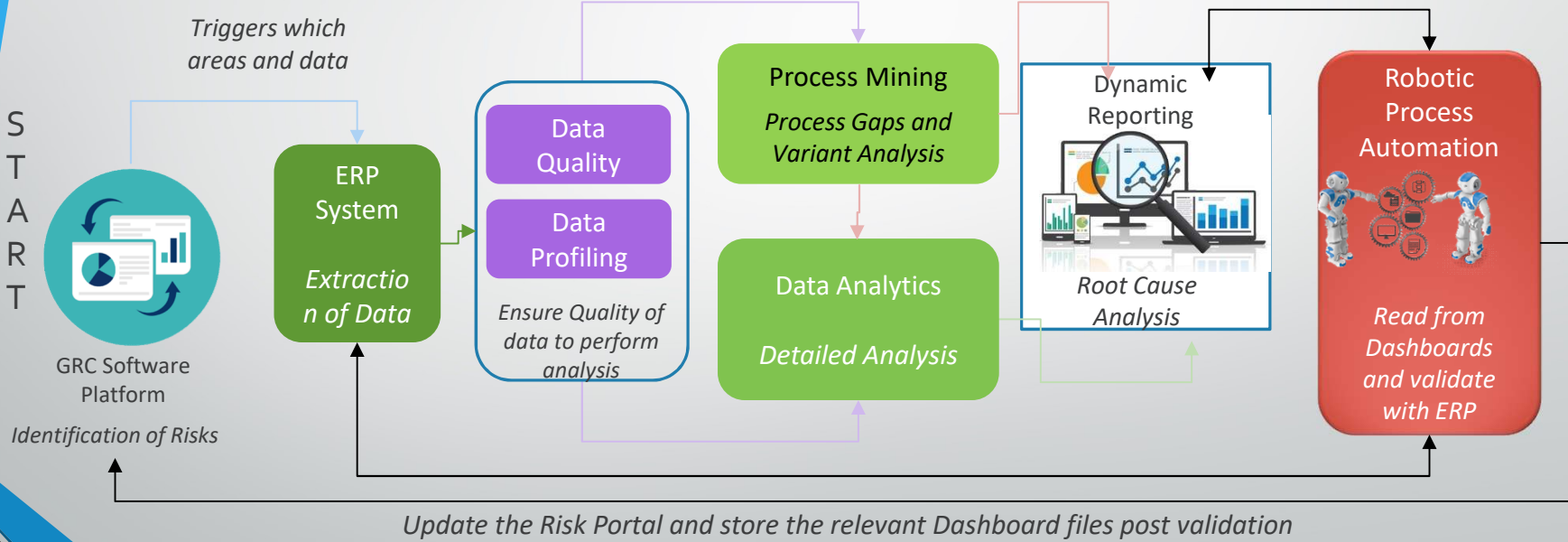
Conversational AI solutions can be designed and developed to interact with SAP, Microsoft, Salesforce, Webpages, etc.



*By 2020, we expect every business especially Financial services, telecom, retail, healthcare, consumer goods sectors & Government agencies will be running their community services, marketing, self care & customer care on chat BOTs & voice assistants. Conversational AI applications will become a commodity in every business, home and transportation.*

# NEXT GEN Audit METHODOLOGY using data analytics

Technological advances and new software solutions are enabling auditors to engage in audit data analytics in a variety of new ways, such as exploration of large sets of audit relevant data from internal and external sources that may produce audit evidence used in risk assessment, analytical procedures, substantive procedures and control testing.





# Journey towards Audit 4.0



Risk Assessment

Planning & Sample Selection

Process Walkthrough

Controls Testing

Reporting & Follow-up



Assurance Activities

# Illustrative Tools and Technology Vendors



What is Internal Control analytics OR  
Continuous controls monitoring

## WHAT IS INTERNAL CONTROL ANALYTICS OR CONTINUOUS CONTROLS MONITORING (CCM)

The objective of the **Internal Controls Analytics** is to provide **better business insights for near-real-time visibility of business performance, process inefficiencies, non-compliances & improvement opportunities**; enabling management in **effective decision-making**

Assist Internal Audit teams in running data analytics through a ready list of algorithms



**Complete Coverage** - 100% transaction coverage for identifying hidden problems within huge data volume



**Quantification** - Quantify the size of the problem to convey business impact & gain management's attention



**Timely Review Closure** – Enable Timely Mitigation of Risks & Reduced Efforts



**Transforming Internal Audit** by integrating data analytics into your Internal Audits



Use data and technology solutions in order to provide 100% coverage



Our Continuous Evolving Risk Analytics Library

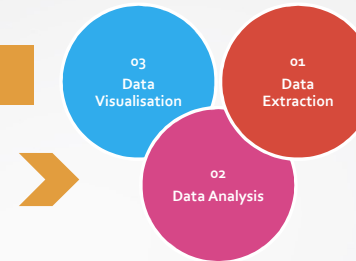


Deploy a team of functional consultants (Process Knowledge, Technology Experts, Visualisation Experts)

# Internal Control ~ audit analytics platform

## What do we do

- A 'technology platform' with a rich library of 300+ risk scenarios and a 'built-in' analytics algorithm to help Internal Audit Teams to enable continuous controls monitoring
- Providing better business insights for near-real-time visibility of business performance, process inefficiencies, non-compliances, and improvement opportunities, allowing management to make more informed decisions



## How do we do it

- **Team** - Our team is a combination of Process, Technology, and Systems (SAP/Oracle/ERP) experts that can identify the underlying challenges, question the status quo when necessary, and bring in root cause-level improvements
- **Technology** - Our system is simple to incorporate since the algorithms are built on SQL and Power Bi

## Benefits



**Enhanced Focus** - Concentrate more on areas with high probability of exceptions



**Timely Closure** - Effort can be channelized towards better root causing and issue closure



**Reduced Dependence on process owners** - Data can be self-extracted through secure means



**Quantification** - Quantify the size of problem to convey business impact & gain management attention



**Problem Identification** - 100% transaction coverage for identifying hidden problems within huge data volume



**Continuous Improvement** - Actionable insights through analytics for continuous business improvement

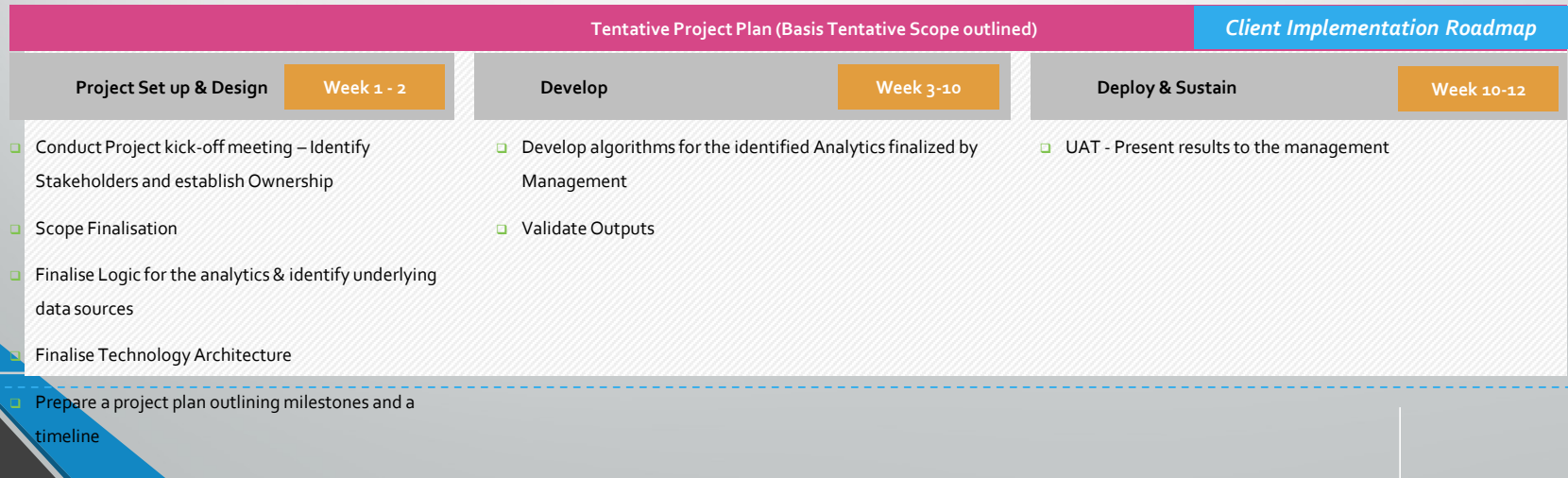
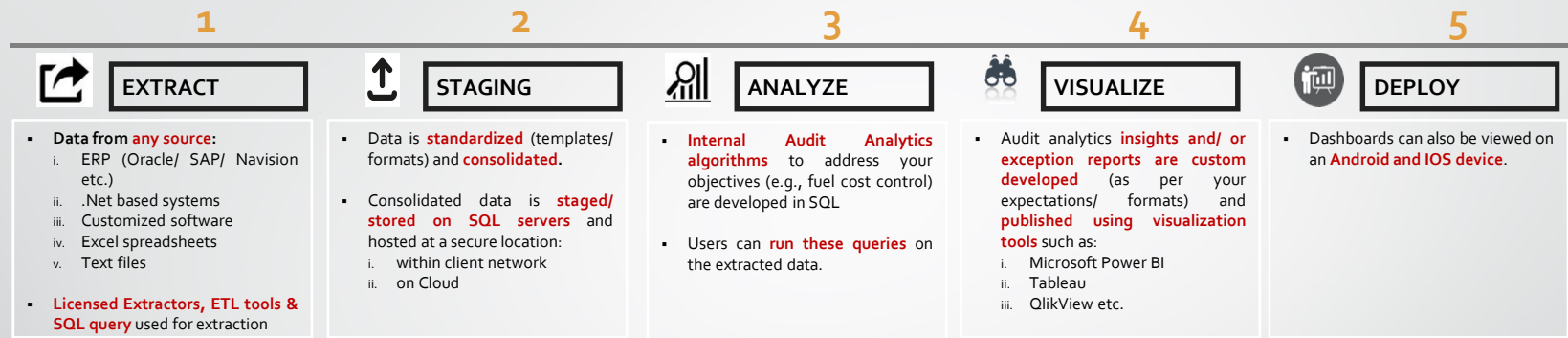


#	Process	# of Analytics
1	Procure to Pay	53
2	Record to Report	44
3	Inventory	20
4	Tax Related Analytics	18
5	HR / Payroll Analytics	20
6	Sales & Marketing	14
7	Maintenance Area	83
8	Retail Analytics	32
9	Fraud Analytics	24
	<b>Total</b>	<b>308</b>

## Our Solution Snapshots

## How THE solution works

Single platform providing end-to-end Internal Controls Audit Analytics solution – from Data Extraction to publishing of Exception Reports



# Technical Architecture

Illustrative  
High-level Technical Architecture – Finalised based on Client's IT Landscape

4 Reporting Layer



3 Data Staging & Analytics Engine



2 Data Ingestion Techniques / Tools



1 ENTERPRISE DATA SOURCES [Structured Data]



INGEST

# I-PRO ANALYTICS OVERVIEW

## Solution Overview

Technology-enabled solution, leveraging the power of publicly available data to identify red flags and unknown risks on account of undisclosed relationships with third parties, concerning employees, vendors, customers, and statutory compliances. Data is sourced leveraging APIs; API is available from 130 Central Government and 1200 State Government channels.

## How do we do it?



### Upload basic Master Data e.g.

- PAN Number
- GSTN Number
- Mobile Number
- Bank Account
- Vehicle Number
- EPFO Establishment ID



### Download Processed result leveraging API

- GSTN Status
  - Bank Account Holder Name
  - Vehicle Tonnage Capacity
  - PF Employee Coverage
- Details on Slide 2**



### Analytics (API Results + Company Reports)

- Perform Analytics, leveraging Company Reports like -
- Purchase Register
  - Vendor Master
  - GSTN Returns



### Insightful Audit Exceptions, Fraud Indicators e.g.

- Employee Moonlighting
- Employee Vendor Collusion
- Business awarded to relatives of client's employees, inexperienced vendors, etc.
- Financial leakages due to payment in unauthorized bank accounts
- Transaction with Shell Companies
- Non-Deposit of Employee PF may result in Penalties

## Example for API Sources

Income Tax

GSTN

MCA

Banking Portal

Parivahan

MSME (Udyam)

EPFO

FSSAI

## Benefits



**Enhanced Focus** – Concentrate more on areas with high probability of exceptions



**Business Support** – Extension to 'second line of defense' for self issue identification & remediation



**Cost Effective** – Data can be self-extracted through secure means



**100% transaction coverage** – For identifying hidden problems within huge data volume

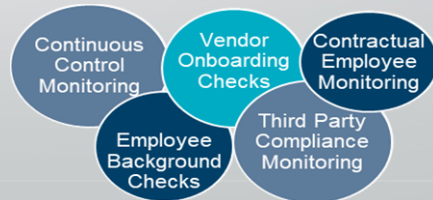


**Quick Turnaround Time** – Effort can be channelized towards better root causing and issue closure



**Continuous Improvement** – Actionable insights through analytics for continuous business improvement

## Use Cases





# INDICATIVE LIST OF RESULTS FROM DIFFERENT API SOURCES

APIs act as gateways to a wide array of data sources. For instance, GSTN and Income Tax APIs provide access to tax-related information, UDYAM APIs grant insights into MSME data, and MCA APIs deliver corporate information.

## 1. GSTN:

- GSTN Number registered against the PAN number
- Legal Name of Firm
- Trade Name of Firm
- Registration Date of Firm
- Status of GSTN number
- Members of Firm
- GSTN Filing Status of Firm
- GSTN HSN/SAC Codes
- Aggregate Turnover Slab of Firm
- Gross Total Income
- Composition Scheme Status
- Status of GSTN Notices for Firm
- Details of Notice like Amount and Issuer

## 2. Parivahan Portal:

- Vehicle Type
- Vehicle Fitness Certification
- Vehicle Tonnage Capacity
- Vehicle Pollution Status
- Registration Date of Vehicle
- Owner Name of Vehicle

## 3. Ministry of Corporate Affairs:

- Company Financial
- CIN Numbers of PAN Holder
- DIN Numbers of PAN Holder
- CIN Strike off Status
- Name of DIN Holder
- Registration Date of DIN
- Registration Date of Company
- Name of ROC for DIN Holder
- Date of Joining Organization
- Date of Resignation of Director
- Office Address
- Company Name
- Authorized Capital of Company



1



2



3



4



5



6



7



8

## 4. Income Tax Department:

- Name of PAN Holder
- Address of PAN Holder
- CIN Number of PAN Holder if any
- Email Address
- Date of Birth/Incorporation

## 5. Banking System:

- Bank Account Holder Name
- Status of Bank Accounts

## 6. FSSAI:

- FSSAI Status
- Registered State
- Registration Date
- Cancellation Date
- Validity Period of the FSSAI License
- License Number

## 7. EPFO:

- Details of the firm
- Challan details
- Establishment Status
- Number of Employees in Establishment
- Name of Employees against whom PF is deposited
- Employment history

## 8. UDYAM

- Status of MSME
- Categorization of MSME
- Date of Registration
- Cancellation Date
- Organization Type
- Major Activity

## I PRO -ANALYTICS HIGHLIGHTING UNDISCLOSED RISK ASSOCIATIONS WITH THIRD PARTIES

Theme	Risk	Automated Tests	Input	Focused / Others
Employee solution	<ul style="list-style-type: none"> <li>Employee having interest in the Vendor business or services.</li> </ul>	<ul style="list-style-type: none"> <li>Check for CIN against employee's DIN – identified through PAN search - employee is a director in vendor</li> </ul>	<ul style="list-style-type: none"> <li>Employee PAN</li> </ul>	Focused
Employee running Parallel Business	<ul style="list-style-type: none"> <li>Employee running parallel business</li> </ul>	<ul style="list-style-type: none"> <li>Check through employee PAN linked with GST registration</li> </ul>	<ul style="list-style-type: none"> <li>Employee PAN</li> </ul>	Focused
Employee having parallel employments	<ul style="list-style-type: none"> <li>Risk associated with an employee concurrently having multiple employments.</li> </ul>	<ul style="list-style-type: none"> <li>Verifying the accuracy and legitimacy of Provident Fund (PF) deductions from multiple sources</li> </ul>	<ul style="list-style-type: none"> <li>Mobile Number</li> <li>PAN Number</li> <li>UAN Number</li> </ul>	Focused

## I PRO - ANALYTICS HIGHLIGHTING UNDISCLOSED RISK ASSOCIATIONS WITH THIRD PARTIES

Theme	Risk	Automated Tests	Input	Focused / Others
Employee not disclosed	<ul style="list-style-type: none"> <li>Risk associated with an employee absconding from an organization or having negative feedback</li> </ul>	<ul style="list-style-type: none"> <li>Check for employment records not disclosed by the employee</li> </ul>	<ul style="list-style-type: none"> <li>PAN Number</li> <li>GSTN Number</li> </ul>	Focused
Vendors created just to take business from company	<ul style="list-style-type: none"> <li>Business awarded to relatives of client's employees, inexperienced vendors etc.</li> </ul>	<ul style="list-style-type: none"> <li>Check for common directors in vendors</li> <li>GST registration very close to vendor registration date</li> <li>GSTN has been revoked or withdrawn through application</li> </ul>	<ul style="list-style-type: none"> <li>PAN Number</li> <li>GSTN Number</li> </ul>	Focused
Contractor's PF Compliances	<ul style="list-style-type: none"> <li>Non-deposit of collected PF by contractors</li> </ul>	<ul style="list-style-type: none"> <li>Validate PF deposit status based on employee's PF number</li> </ul>	<ul style="list-style-type: none"> <li>Establishment PF Number</li> </ul>	Focused

## I PRO - ANALYTICS HIGHLIGHTING UNDISCLOSED RISK ASSOCIATIONS WITH THIRD PARTIES

Theme	Risk	Automated Tests	Input	Focus Area
Payments in unauthorized bank accounts	<ul style="list-style-type: none"> <li>Financial leakages due to payment in unauthorized bank accounts (other than of respective vendors / employee's bank)</li> </ul>	<ul style="list-style-type: none"> <li>Verify the name of the bank account holder through account number and IFSC</li> </ul>	<ul style="list-style-type: none"> <li>Bank Account number and IFSC Code</li> </ul>	Focused
Submission of another Individual's PAN	<ul style="list-style-type: none"> <li>PAN of another individual submitted by vendor to avoid TDS deduction</li> </ul>	<ul style="list-style-type: none"> <li>Check Individual's name based on PAN number and compare with Vendor Master Record</li> </ul>	<ul style="list-style-type: none"> <li>PAN Number</li> </ul>	Others
Vendor raising manual invoices To whom e-invoicing is mandatory	<ul style="list-style-type: none"> <li>Loss of input tax credit on account of defective invoice issued by vendor – Manual invoice issued by vendor on whom E-invoicing is mandatory.</li> </ul>	<ul style="list-style-type: none"> <li>Identify vendors to whom e-invoicing is mandatory</li> </ul>	<ul style="list-style-type: none"> <li>GSTN Number</li> </ul>	<ul style="list-style-type: none"> <li>Others</li> </ul>

## I PRO -ANALYTICS HIGHLIGHTING UNDISCLOSED RISK ASSOCIATIONS WITH THIRD PARTIES

Theme	Risk	Automated Tests	Input	Focus Area
Transactions with shell companies	<ul style="list-style-type: none"> <li>Onboarding of shell company and payment of advances</li> </ul>	<ul style="list-style-type: none"> <li>Validate MCA status (strike off / active) and return filing status through CIN numbers</li> </ul>	<ul style="list-style-type: none"> <li>CIN number</li> </ul>	<ul style="list-style-type: none"> <li>Others</li> </ul>
Parivahan	<ul style="list-style-type: none"> <li>Placement of unregistered vehicle by transporter</li> <li>Financial loss in case transporter placed smaller vehicle but raised invoice for heavy vehicle</li> </ul>	<ul style="list-style-type: none"> <li>Validation of registration status based on vehicle number</li> <li>Validation of vehicle type based on vehicle number</li> </ul>	<ul style="list-style-type: none"> <li>Vehicle Number</li> <li>Vehicle Number</li> </ul>	<ul style="list-style-type: none"> <li>Others</li> </ul>
Validation of Food Partner License	<ul style="list-style-type: none"> <li>Procuring Food services from a non compliant Vendor</li> </ul>	<ul style="list-style-type: none"> <li>Validates the license type, license status, renewal status for Food Vendor/customer</li> </ul>	<ul style="list-style-type: none"> <li>FSSAI Number</li> </ul>	<ul style="list-style-type: none"> <li>Others</li> </ul>



**Thank you** for being  
a lovely audience,  
learning together is  
always a pleasure....

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