

Diligent ACL Analytics Offerings to Fit Your Unique Needs

Expand your operational analytics capabilities, without adding headcount or spending time upskilling current staff. Select from a standard set of analytics services and choose the best option to fit your needs. Implementing and scaling specific analytics capabilities is easy and straightforward.

With our standardized analytics offerings, take advantage of:



A quick and straightforward process to automate a pre-defined test



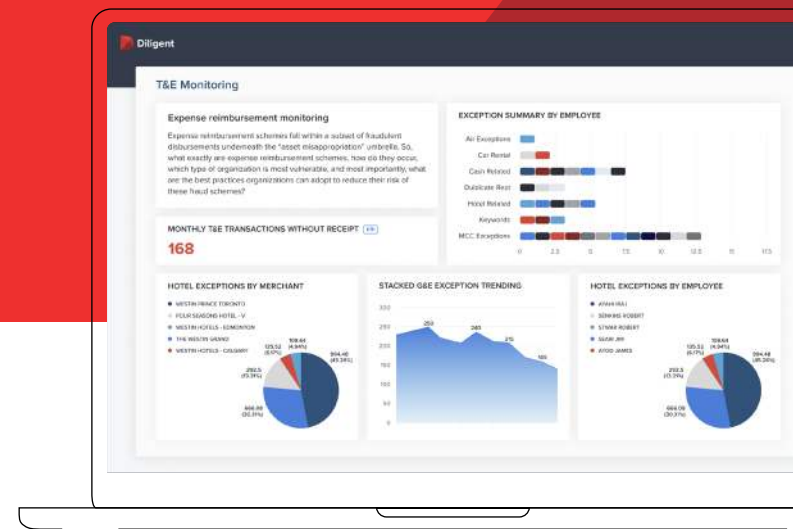
Easy, largely hands-off implementation while Diligent experts handle all the details for your selected analytic(s)



Customizable, convenient purchasing of as many analytics as you need



Straightforward sales process and standard pricing, with each analytic available at a flat fee



Our convenient offerings list makes it fast and easy to select only the analytics you need. Each of our five analytic categories has a number of analytic tests that can be set up individually or in tandem with others. Choose from:

- Access Controls Analytics
- Sanctioned Screening Analytics
- Revenue Assurance Analytics
- Accounts Payable Cost Containment Analytics
- Travel & Entertainment Fraud Analytics

Refer to the following pages for technical details on our available ACL Analytics services.

Accounts Payable Cost Containment Analytics

In an area that can be prone to fraud, human or system error, or control weakness, these analytics can quickly identify issues and help mitigate risk. AP Cost Containment can provide strong monetary ROI.

Due to the involvement with Vendor Master data, Vendor Management is included in this list.

Analytic Type	Description	Considerations
Invoices – Duplicates Analysis	Identify invoices, prior to payment release, that are flagged as duplicates. Each criterium is considered one analytic. For example, Same Vendor, Amount, Date, Invoice Number is one analytic.	As this is a preventative analytic, the investigation period will need to be on “open” records, which can lead to false positives if adjustments/voids come into play. The Invoice Lines table may not be needed if we’re not interested in line-item duplication.
Invoices – Non-PO (Purchase Order) Invoices	Identify invoices that do not have an associated purchase order.	A query should be built with the data sets joined together before importing into Analytics as two snapshots of data could mis-align (especially if the PO was created last month and the invoice is current month).
Invoices – Split Invoices	Identify multiple invoices that are associated to the same purchase order where the total amounts exceed an approval level.	Approval levels will be defined by user-defined parameter. Adding logic to include an approval levels data set will increase the effort of this analytic.
Invoices – Low Dollar Invoices	Identify low dollar invoices that could be processed as part of a larger invoice to save on operational costs.	A user-defined parameter will be provided to denote the low dollar threshold.
Invoices – Even or Round Dollar Invoices	Identify invoices that have an invoice amount that is either even dollar or has zero cents.	A user-defined parameter will be provided to denote what is our even dollar divisor (such as 10, 25, 50, 100).
Payments – Split Payments	Identify multiple payments that are associated to the same invoice where the total amounts exceed an approval level.	Approval levels will be defined by user-defined parameter. Adding logic to include an approval levels data set will increase the effort of this analytic.
Payments – 3-Way Match	Identify payments that were issued by the same invoice creator and vendor creator. The analytic can also identify a 2-way match between invoice and vendor as well.	Creator information must be available in all three data sources noted above. Further data source needs will increase complexity.
Payments – Manual Payments on Weekends/Holidays	Identify payments issued on a weekend or holiday.	Batch payments should be omitted from this analysis as those are not typically manually processed.
Payments – Payment Efficiency	Identify the age between invoice entry and payment process. This can be reviewed as conformity to payment terms or a review of timely processing.	N/A
Vendor Management – Dormant Vendors	Identify vendors that have not had activity for the last X months.	A user-defined parameter will be provided to denote no activity.
Vendor Management – One-Time Vendors	Identify vendors that have had only one transaction in the last X years.	A user-defined parameter will be provided to denote no activity. If needed, parsing the entire Invoice Header table is possible.
Vendor Management – Sudden Activity	Identify vendors that have had no activity for X months, then suddenly had activity last month.	A user-defined parameter will be provided to denote time since last activity.
Vendor Management – Critical Data Fields	Identify fields in a vendor’s master records that are missing or irregular. This analytic is several small tests in one, such as checking for blank fields, fields that have the incorrect format (like Tax ID or phone number) or have the irregular/absent characters (like no numerics in an address).	Create a supplement error code report to show a summary of which vendor records matched multiple errors.
Vendor Management – Top X Vendor Activity (Spend & Volume)	Report on vendor activity for a given period by spend and volume in a Top X format for each.	Great candidate for visualizations in Results. A user-defined parameter will be provided to denote how many records to be included in the Top X output.
Vendor Management – Vendor Employee Match	Identify vendor records that match an employee record. Each criterium is considered one analytic. For example, Vendor Address matches Employee Address.	Ideally, the employee data is housed in the same data source as the vendor data.

Revenue Assurance Analytics

These analytics focus on customers and sales order data sets. Streamline order to cash (O2C) as well as know your customer (KYC) processes.

Analytic Type	Description	Considerations
Customers - Duplicate Customers	Identify customers that are duplicates. Each criterium is considered one analytic. For example, same customer name and bank account is one analytic.	N/A
Customers - Inactive Customers	Identify customers have not had any activity in X months/years.	A user-defined parameter will be provided to denote the number of months or years of inactivity.
Customers - Critical Data Fields	Identify fields in customer master records that are missing or irregular. This analytic is several small tests in one, such as checking for blank fields, fields that have the incorrect format (like Tax ID or phone number) or have the irregular/absent characters (like no numerics in an address).	Create a supplement error code report to show a summary of which customer records matched multiple errors.
Customers - Employee Customer Match	Identify customers that match employee records. Each criterium is considered one analytic. For example, match on address, city, state, zip/postal is one analytic.	Fuzzy logic can be applied depending on the analytic.
Sales Orders - Segregation of Duties: Order to Customer	Identify sales orders that were created by the same user that created the customer.	N/A
Sales Orders - Missing Sales Order	Identify shipping documents that do not have a sales order noted.	N/A
Sales Orders - Critical Data Fields	Identify fields in sales orders that are missing or irregular. This analytic is several small tests in one, such as checking for blank fields, fields that have the incorrect format or have the irregular/absent characters (like no numerics in a customer contact number).	N/A
Sales Orders - Unauthorized Sales Orders	Identify all sales orders issued over the last X months that were created by users not authorized to do so.	A user-defined parameter will be provided to denote the investigation period. A second analytic could be created to ensure the approver of the sales order was also authorized to do so.
Sales Orders - Excessive Write-offs (by Customer)	Report the top X sales order write-offs by customer that occurred within the last X months.	A user-defined parameter will be provided to denote the investigation period and report volume (top X).
Sales Orders - Excessive Write-offs (by Creator)	Report the top X sales order write-offs by creator that occurred within the last X months.	A user-defined parameter will be provided to denote the investigation period and report volume (top X).
Sales Orders - Excessive Discounts (by Customer)	Report the top X customers that have the most discounts given within the last X months (by volume and amount).	A user-defined parameter will be provided to denote the investigation period and report volume (top X).
Sales Orders - Excessive Discounts (by Creator)	Report the top X sales order creators that have given the most discounts within the last X months (by volume and amount).	A user-defined parameter will be provided to denote the investigation period and report volume (top X).
Sales Orders - Channel Stuffing	Identify sales orders created during critical periods (e.g. at the end of the fiscal quarter) that may be sold in higher quantity than necessary and/or heavily discounted, resulting in an overstatement in revenues.	A user-defined list of critical periods can be created to support this analysis. User-defined parameters will be provided to denote quantity and discount thresholds.
Shipping - Unauthorized Shipments	Identify all shipments over the last X months that were created by users not authorized to do so.	A user-defined parameter will be provided to denote the investigation period. A second analytic could be created to ensure the approver of the shipment was also authorized to do so.
Shipping - 2-Way Match: Order to Shipping Document	Identify variances in quantity or price to ensure transaction accuracy for sales order and shipping documents.	Percent variance can be applied to reduce exception counts; however, if all mismatches are reviewed, no variance should be used.

Access Controls Analytics

These analytics monitor digital and physical Access Controls. Equip your organization to identify current and previous users and maintain privileged access protocols.

Analytic Type	Description	Considerations
System/Application – Terminated Employee Access	Identify active users in a system/application that are no longer employed.	Matches are done via username, user email or other unique identifier. If there is no unique identifier, then the system/application is not a good candidate for automation.
System/Application – MFA Token Inactive Employee	Identify if a Token is assigned to a terminated employee.	Matches are done via username, user email or other unique identifier. If there is no unique identifier, then the system/application is not a good candidate for automation.
System/Application – Privileged User Listing	Identify all accounts that have system/application privileged access.	Many systems will have two levels of mapping (User to Role); however, some systems may have permissions beyond role assignment.
System/Application – Appropriate Access Review	For the given system/application, report all employees that have access and their role within.	Access is appropriate and the role/permission is correct. Typically this is segregated by reporting for their review/attestation.
System/Application – Multiple Accounts	Identify employees that have multiple accounts in a given system/application.	IT accounts may be omitted due to job function needs. Matches are done via username, user email or other unique identifier.
System/Application – Non-Expiring Accounts	Identify users that have been assigned a non-expiring account.	If employee data fields are required for reporting, a tie in for Employee Roster is required.
System/Application – Dormant Accounts	Identify users that have not logged into a given application/system for a period of time.	A user-defined parameter will be provided to adjust our "period of time."
System/Application – Off Hours Access / Activity	Identify system/application access or activity after normal working hours.	Remote/Hybrid employees may have odd work times. User-defined parameters will be provided for start/end time of working hours.
System/Application – Network Folder Access Review	Identify AD users that have access to specific sensitive folder locations.	May be high complexity based on data availability.
Physical Access – Inactive Login / Badge	Identify active employees who are not using their badges. Could be a sign of piggybacking or mis-mapping of badges/logins.	A user-defined parameter will be provided to denote "inactivity."
Physical Access – Denied Access	Identify repeated denied access to a specific location/panel.	A user-defined parameter will be provided to denote "repeated" denials.
Physical Access – Off Hours / Weekend / Holiday Access	Identify access off hours or on a weekend or on an observed holiday.	User-defined parameters will be provided for start/end time of working hours. Dynamic annual holiday list (US, Canada, Germany) available; however, customization possible.
Physical Access – Multiple Replacement Badges/FOBs	Identify instances where an employee has had multiple requests for a new badge over X months. This can be considered a security risk.	A user-defined parameter will be provided to denote "X months."
Physical Access – Badge Use on Paid Time Off	Identify badge/login access while on supposed PTO	N/A
Physical Access – Inactive Employee Badge Access	Identify badge/login access while on supposed PTO	N/A
Physical Access – Inactive Employee Badge Access	Identify badges that are assigned to inactive employees that were used after the employee's termination date.	Recycled badges can be false positives here, though it will require an admin update to the mapping
Physical Access – Irregular Access Pattern	Review the number of times a secured area was accessed (opened) and exited (closed). If there is a discrepancy, investigate.	N/A

Sanctioned Screening Analytics

Sanctioned screenings are typically part of the third-party risk management (TPRM) process; however, these analytics can be applied against different lists depending on the industry. The analytics identify matches between an excluded/sanctioned list and a customer data set.

*Master Data Set can be employees, vendors, customers, physicians, volunteers, students, contractors, etc. Note that some data sets will use the Business Name and others will use First Name + Last Name.

Analytic Type	Description	Considerations
Master Data Set* vs. SAM EPLS - 100% Name Matching	Identify name matching between a master data set and the SAM EPLS. Partial matches are not considered.	Matches are case insensitive and have special characters removed. Transposed matching is performed and the middle initial can be included or excluded.
Master Data Set* vs. SAM EPLS - Fuzzy Name Matching	Identify fuzzy name matching between a master data set and the SAM EPLS. Fuzzy logic is based on the Dice coefficient fuzzy algorithm.	Matches are case insensitive and have special characters removed. The middle initial can be included or excluded. User defined parameters will be available for percent same and dice size.
Master Data Set* vs. SAM EPLS - 100% Address Matching	Identify address matching between a master data set and the SAM EPLS. Partial matches are not considered. A match is considered when the address line(s), city, state, and zip/postal are the same.	Matches are case insensitive and have special characters removed. SAM EPLS contains four address lines and all/none can be included/excluded. Harmonization techniques recommended (Street = St, for example)
Master Data Set* vs. SAM EPLS - Numeric Address Matching	Identify numeric address matching between a master data set and the SAM EPLS. A match is considered when the numeric values of the address lines and zip/postal code are the same.	Will not match "One" with "1." Addresses are not good candidates for our fuzzy algorithms due to the numerical significance/difference possible (1234 and 9234, for example).
Master Data Set* vs. SAM EPLS - 100% NPI	Identify NPI (National Provider Identifier) matching between a master data set and the SAM EPLS.	Matches will have special characters removed.
Master Data Set* vs. OIG LEIE - 100% Name Matching	Identify name matching between a master data set and the OIG LEIE. Partial matches are not considered.	DOB is available in the OIG LEIE for a stronger match. Matches are case insensitive and have special characters removed. Transposed matching is performed and the middle initial can be included or excluded. Diligent has an automated method to automatically download and use the most recent OIG LEIE file.
Master Data Set* vs. OIG LEIE - Fuzzy Name Matching	Identify fuzzy name matching between a master data set and the OIG LEIE. Fuzzy logic is based on the Dice coefficient fuzzy algorithm.	DOB is available in the OIG LEIE for a stronger match. Matches are case insensitive and have special characters removed. The middle initial can be included or excluded. User defined parameters will be available for percent same and dice.
Master Data Set* vs. OIG LEIE - 100% Address Matching	Identify address matching between a master data set and the OIG LEIE. Partial matches are not considered. A match is considered when the address line(s), city, state, and zip/postal are the same.	DOB is available in the OIG LEIE for a stronger match. Harmonization techniques recommended (Street = St, for example).
Master Data Set* vs. OIG LEIE - Numeric Address Matching	Identify numeric address matching between a master data set and the OIG LEIE. A match is considered when the numeric values of the address lines and zip/postal code are the same.	DOB is available in the OIG LEIE for a stronger match. Will not match "One" with "1". Addresses are not good candidates for our fuzzy algorithms due to the numerical significance/difference possible (1234 and 9234, for example).
Master Data Set* vs. OIG LEIE - 100% NPI	Identify NPI (National Provider Identifier) matching between a master data set and the OIG LEIE.	DOB is available in the OIG LEIE for a stronger match. Matches will have special characters removed.

Travel & Entertainment Fraud Analytics

Travel & Entertainment (T&E) is a great starting point for continuous process monitoring. Due to sometimes disjointed processes across multiple systems, T&E can be a high-fraud area.

However, with the data frequently being the cleanest and least confusing of relevant datasets, organizations can derive value from quickly analyzing or reporting on a large data set.

Note that many expense systems will have an "Expense Type" field, but will not have a parent roll up (such as a category). For example, there may be Breakfast, Lunch and Dinner as expense types, but no field that denotes that all are "Meals." The category is helpful for holistic reporting and will thus be part the development deliverables.

Analytic Type	Description	Considerations
T&E Expense Exceptions – Outlier by Category	Identify expenses where the amount is greater than the expected median for the given category.	A user-defined parameter will be provided to allow for outlier formula (typically this is two standard deviations above the median or average).
T&E Expense Exceptions – Miscellaneous Expenses	Report all expenses that have no mapped category or are flagged as a Miscellaneous expense type.	There may be multiple ways to determine a miscellaneous expense, such as expense type, mapping to expense category, keyword analysis on the line description, etc.
T&E Expense Exceptions – Personal Expenses	Identify all expenses that are flagged as a personal expense.	Many expense systems have a field to indicate if it is a personal expense; however, not always.
T&E Expense Exceptions – Suspicious Keyword Analysis	Identify all expenses that contain high-risk or suspicious keywords.	ARC CS may have a standard, initial list to use based on previous deliveries; however, it is always best that the user customizes the list based on their needs.
T&E Expense Exceptions – Duplicate Expenses	Identify duplicate expense lines submitted by the same employee.	There are many variations on a duplicate, including same, similar and fuzzy logic. Each variation is considered one analytic.
T&E Expense Exceptions – Split Expenses	Identify two or more expenses that have been split to circumvent transaction/ approval limits. The expenses when totaled together will exceed the assigned limit.	Limit(s) are supported via parameter or lookup table.
T&E Expense Exceptions – Cash to Card Ratio	Identify employees who have only cash expenses submitted. This is performed by isolating both transaction types (cash/personal card, and corporate card) and calculating the ratio of each.	Employee Roster is only required if we want to include the employee information if not available in the expense data. This analytic is both information and exception-based as we can review all card/cash ratios and question why some employees only submit cash expenses (if they have a corporate card).
T&E Expense Exceptions – Even or Round Dollar Expenses	Identify expenses that have an amount that is either even dollar or has zero cents.	A user-defined parameter will be provided to denote what is our even dollar divisor (such as 10, 25, 50, 100). This parameter is often tied to common gift card or donation amounts.
T&E Expense Exceptions – High Dollar Expenses	Identify expenses that exceed a defined threshold amount.	While these expenses may be valid, they should also be reviewed for other issues, such as approver collusion, no receipt, keyword matching, etc. A user-defined parameter will be provided to denote the threshold amount.
T&E Expense Exceptions – Weekend / Holiday Expenses	Identify expenses that do not have a receipt provided.	Often organizations will apply a "greater than \$25" rule to no-receipt expenses.
T&E Expense Exceptions – Mileage & Rental; Same Expense Report	Identify expense reports that contain both mileage and rental car claims.	A second analytic can also be created to identify mileage expenses that overlap with when a rental was also claimed within the same date range.
T&E Expense Exceptions – IT Equipment or Software Expenses	Identify expenses that are typically seen to be processed through procurement (or by another department), such as IT equipment or software licenses.	This analytic may not be limited to use IT items. It would be prudent to create a list of expense types/categories that should not be claimed through T&E or pair this analytic with Keyword Analysis
T&E Expense Reporting – Category Spend & Volume Trending	Report on expenses by category for a given period by spend (\$) and volume (#).	This is a strong use case for Results. This assumes we have performed an expense type roll up exercise.
T&E Expense Reporting – Department Spend & Volume Trending	Report on expenses by department for a given period by spend (\$) and volume (#).	This is a strong use case for Results. Employee Roster is needed if the department information is not available in the expense-related records.
T&E Expense Reporting – Top X Merchant Spend & Volume	Report on merchant activity for a given period by spend and volume in a Top X format for each.	It may be difficult to compile a harmonized list of merchants into one as we may see "Walmart #135" and "Walmart #8972" as two different Merchants. A user-defined parameter will be provided to denote how many records to be included in the Top X output.
T&E Expense Reporting – Top X Employee Spend & Volume	Report on employee activity for a given period by spend and volume in a Top X format for each.	A user-defined parameter will be provided to denote how many records to be included in the Top X output. Employee Roster needed if we require additional employee information for our reporting.



About Diligent

Diligent is the global leader in modern governance, providing SaaS solutions across governance, risk, compliance, audit and ESG. Empowering more than 1 million users and 700,000 board members and leaders with a holistic view of their organization's GRC practices so they can make better decisions, faster. No matter the challenge.

For more information or to request a demo, contact us today:

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