

# 2017 Travel and Expense Management Report

Exploring the Value and Use Case of Leading Travel and Expense Management (TEM) Automation Software

## Q4 2017 | Featuring Insights On...

- » Current Expense Management Trends Among North American Organizations
- » Benefits of Automating Expense Management Processes
- » Features and Functionality of Leading TEM Solutions
- » Strategies for Overcoming TEM Adoption Barriers
- » A Few Leading TEM Solution Providers

Underwritten in Part By



## Contents

Introduction.....	3
Today’s Expense Management Process .....	4
TEM Features and Functionality.....	9
Overcoming TEM Adoption Barriers .....	13
Certify .....	17
Chrome River.....	21
Coupa .....	25
Paramount Workplace.....	29
SutiSoft.....	32
The Final Step: Optimizing Travel Data Management .....	35
Case Study #1: An Expense Management Provider.....	37
Case Study #2: A Travel Technology Platform Client .....	38
About Level Research .....	39



## Introduction

The travel and expense management (TEM) solution is one of the most useful and widely adopted back-office process technologies on the market today. Organizations of all sizes turn to these systems to reduce processing costs and gain more control over travel and expense (T&E) spend. By eliminating manual expense reporting, organizations are boosting employee productivity—and their own chances to be major competitive forces within their markets.

Although Levvel's research indicates that over half of North American businesses have adopted a TEM solution, many companies still resist expense reporting automation. These companies give several reasons for their resistance to adoption, but the leading barrier is a belief that current processes are working. However, research also shows that in actuality, current, manual-based processes do not work. Companies that do not automate experience higher costs, more frequent reporting errors, and lower employee morale than companies with TEM software. These issues are not only tiresome, but they only grow worse the longer they are left unattended.

This report is for companies that are still hesitant to adopt TEM software. It serves to illustrate the sharp contrast between manual and automated expense reporting. It highlights current trends in expense management among today's leading organizations, and showcases the benefits of automation. It also includes an overview of leading TEM software features and functionality, as well a list of strategies for overcoming several common TEM adoption barriers.

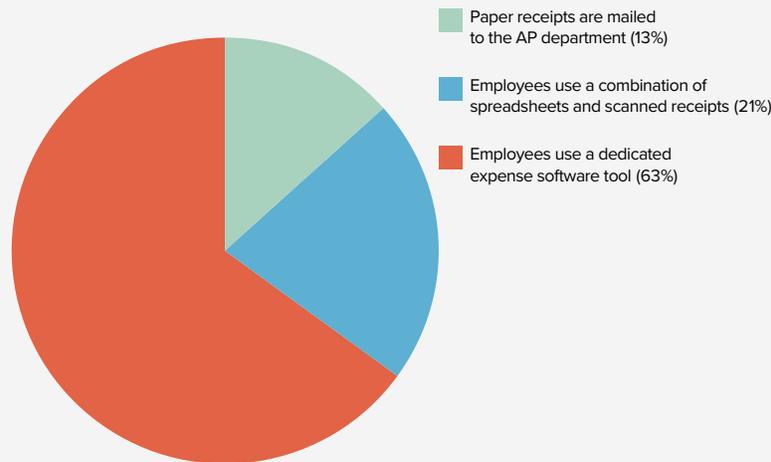


## Today's Expense Management Process

Level Research surveyed several hundred individuals employed in many different industries to identify current trends among organizations' traveling workforces and usage of TEM automation software. Typically, the most common manual methods for processing travel expenses are sending paper receipts directly to the AP department or submitting a spreadsheet along with scanned images of receipts. Both methods place the majority of the burden on the traveling employee, and require careful attention, organization, accuracy, and time. Both methods are also very inefficient financially and temporally, and tend to lead to errors in reporting and a greater risk of non-compliant or fraudulent employee spend. Fortunately, survey results show that the majority of organizations are using an expense management software for this process, see Figure 1.

FIGURE 1

### Employee Expense Report Submission Methods



### Over Half of Organizations Report Using an Expense Reporting Tool

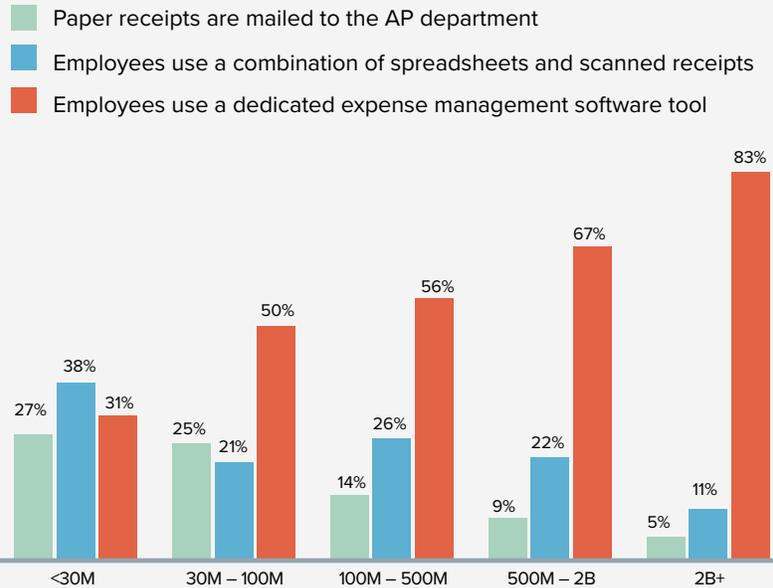
*"Please select the method with which your employees submit expense reports."*

There are a few factors that affect the likelihood of whether or not a company has adopted an expense management tool, including company age, culture, and industry. However, Level Research has found that the greatest factor is revenue, see Figure 2. The higher a company's revenue, the more likely it is to use a dedicated expense management software tool to process expenses. It is also true that, for the most part, the larger the company is, the less likely it is to require mailing paper receipts to the AP department.



FIGURE 2

### Expense Management Solution Usage by Industry



#### Larger Organizations are More Likely to Have Adopted an Expense Management Solution

*“Please select the method with which your employees submit expense reports.”*

&

*“What is your organization’s annual revenue in the most recent 12-month reporting period?”*

This trend is likely due to the fact that companies with higher revenues and more employees typically have more travel, spend, and data that requires careful management. They are also likely to have more resources with which to invest in an expense reporting software. However, Levvel Research has seen both an increase in more affordable and versatile TEM options on the market, and a correlating increase of interest in TEM technology among lower-revenue companies.

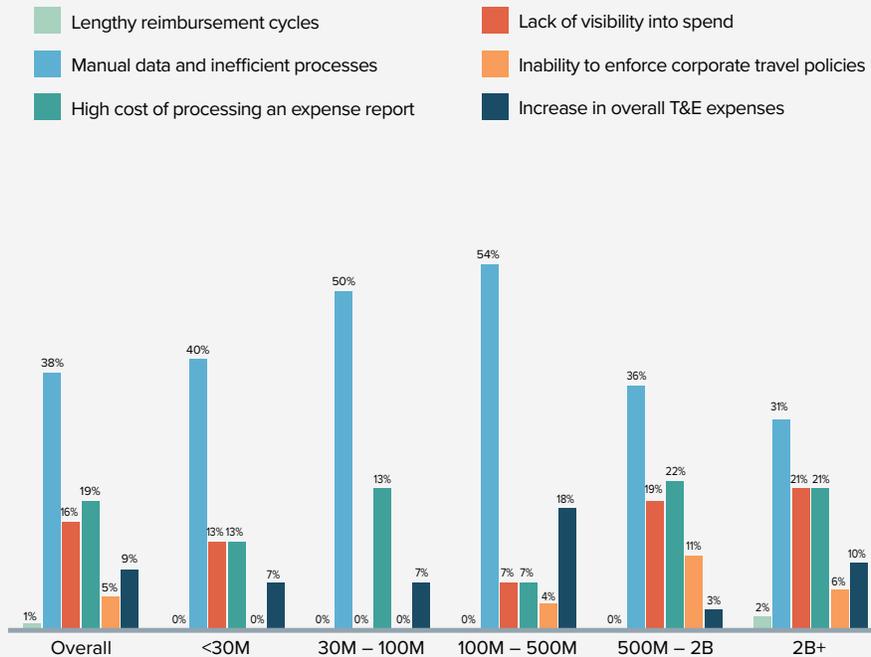
Whether or not a company adopts a TEM solution also depends on its current state pain points. When survey respondents were asked about the leading motivations that led them to adopt a software, the largest issues were manual data entry and inefficient processes, followed by a lack of visibility into spend, see Figure 3.

Although all revenue segments reported manual processes as their top problem, there were some slight variations across company size. For example, the inability



FIGURE 3

### TEM Adoption Motivators by Revenue



#### Manual Data Entry and Inefficient Processes is the Top Motivator for TEM Adoption

“What were the top reasons your organization ultimately decided to adopt your expense management solution?”

&

“What is your organization’s annual revenue in the most recent 12-month reporting period?”

to enforce corporate travel policy and lengthy reimbursement cycles were only highly important issues for companies at the upper middle market (UMM) and enterprise level. This is likely due to larger companies’ lengthier approval processes and stricter controls around spend management.

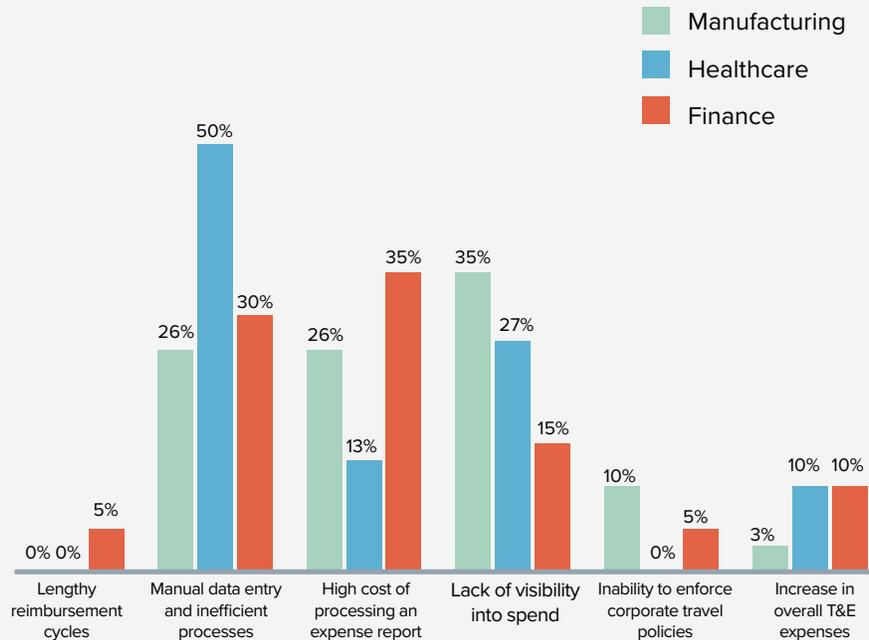
For example, the healthcare industry is much more likely to report manual processes as the leading motivator, which could be attributed to the fact that the industry’s is inundated with high volumes of paper. Finance is more concerned with the cost of processing an expense, which may be due to the prevalence of highly paid employees and costly reports. The manufacturing industry’s top motivator is a lack of visibility into spend, which is likely related to these organizations’ low margins.

Once companies have adopted a TEM software, many of the issues listed in the figures above are reduced and/or eliminated. According to survey results, the



FIGURE 4

**TEM Adoption Motivators by Industry**



**Adoption Motivators Vary Slightly by Company Industry**

*“What were the top reasons your organization ultimately decided to adopt your expense management solution?”*

&

*“Please select the standard industry description that best fits your organization.”*

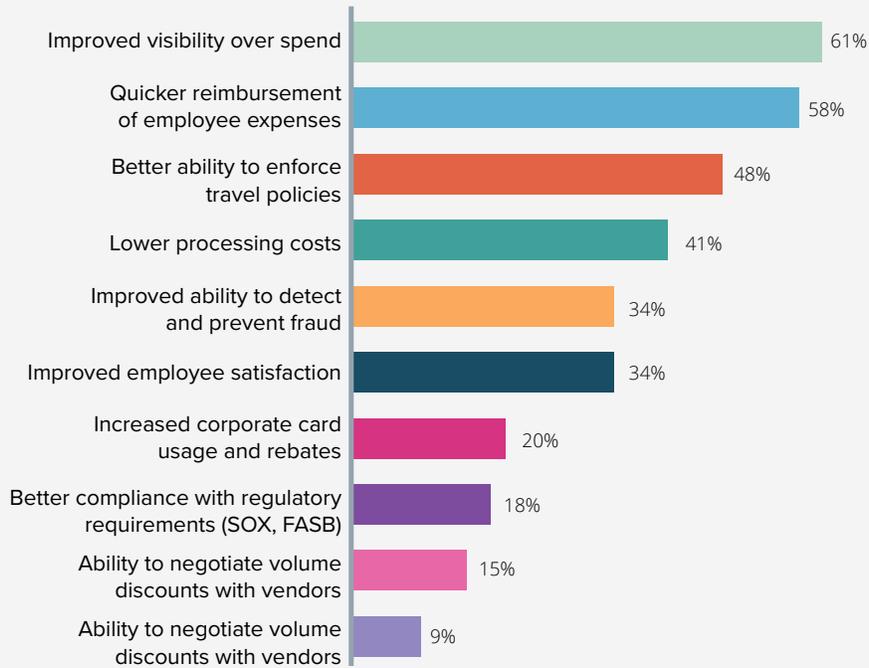
top benefits achieved by adopters of TEM software are improved visibility over spend, quicker employee reimbursement, an increased ability to enforce travel policies, and lower processing costs, see Figure 5.

These benefits have many long-lasting effects for organizations. Improved spend visibility allows companies to identify areas of improvement in their spend management, inefficient purchasing strategies and contracts, and fraudulent employee activity. Lower processing costs improve a company’s financial state and free up resources for investments. Quicker reimbursement and improved employee satisfaction both lead to boosted employee morale and productivity, which can have a direct effect on a company’s product delivery, competitive advantage, and business success.



FIGURE 5

### Biggest Benefits Achieved Through TEM Automation



#### Most Organizations Report Improved Visibility into Spend After Adopting TEM

*“What are the biggest benefits your organization has achieved by automating your expense management?”*

The following section offers a high-level guide to today’s leading TEM software offerings, including features, functionality, and services.



## TEM Features and Functionality

TEM solutions consolidate reporting tasks, reduce reliance on paper-based processes, and improve visibility into expense management—all while providing advanced business intelligence and analytics tools to proactively control costs. This section outlines the features found in today’s leading TEM solutions, from pre-trip authorization through post-trip analysis.

### Pre-Trip Authorization

With today’s TEM solutions, users can plan and book a trip in advance, as well as submit travel plans for approval. This eliminates the occurrence of unauthorized expense reimbursement requests after a trip, and it reduces one of the primary problems associated with T&E—spend outside of company travel policies. Integrated booking and expense management systems incorporate the client’s corporate travel policies, preferred vendors, and spending limits during the pre-trip authorization process. The TEM system sends notifications to employees that are attempting to book outside company spending limits, saving valuable time for both employees and approvers. Managers also receive pre-trip notifications, are notified when out-of-policy requests are submitted, and may approve or deny requests based on budget restraints or spend limits.

### Online Booking

Essential to the pre-trip planning process, online booking functions provide companies with an additional level of control in corporate travel, as well as competitive prices that increase savings. Online booking provides employees with a tool to book airfare, hotel reservations, and transportation through approved or preferred vendors only, thereby cutting costs and increasing volume-based discounts and frequent traveler rebates.

Some tools automatically create a tentative travel itinerary based on a user’s parameters. For example, a traveling employee can enter the time, dates, and preferred methods of travel for an upcoming trip, and the booking tool will build a plan of ready-to-book items that cover the transportation and accommodation needs for the entire trip, such as rental car, flight, train ride, and hotel stay. Other tools can save recurring trips for one-click booking, such as for a business professional that makes regular trips to a client or subsidiary company in another state or country.



Most TEM providers offer booking through a partnership with one or more leading travel booking companies, such as GetThere, NuTravel, and Egencia. Some TEM solutions have designed their own native, fully integrated booking tools, while others have a technically-agnostic system that will pull all travel booking information from a vendor of the client's choice. However the integration is offered, most solutions automatically transfer itineraries into a company's TEM system and connect the itineraries to expense reports after a trip has been completed.

## Mobility

TEM is increasingly dependent on mobile functionality, and solution designers are making mobile features one of their top priorities in development. One of the most valuable assets of mobility is the real-time dynamic—traveling employees can submit their expense reports from anywhere at any time, and approvers can see the information clearly, accurately, and immediately. In many cases, this technology enables expense approval in just minutes.

A fundamental capability of mobile TEM is its receipt capture functionality. Most providers attach pictures of receipts to expense reports for later verification, but many of the leading developers also now provide OCR scanning, which extracts the data from the receipt and automatically matches it to the expense report. This reduces reliance on manual data entry—instead of entering each individual expense, users need only verify the extracted information and submit for approval. Some TEMs have developed partnerships with commonly used vendors (e.g., food and beverage providers or airlines). These partnerships ensure that employees earn loyalty rewards and negotiated business rates by syncing purchases with the company's TEM solution.

Mobile apps also allow for IRS-compliant electronic receipts, receipt forwarding, app integration, offline mode, mileage calculators, and other features. Providers are designing their software to be compatible across many devices—users can begin their expense report submission on a tablet or smartphone and finish on a desktop computer without any loss of accuracy or content.

## Expense Reporting

Accurate expense reporting is vital for controlling travel and expense spend. Modern TEM solutions automate expense reporting by pre-populating expense reports from corporate credit card transactions, receipt image capture, and electronic receipts, thus eliminating an otherwise time-consuming and error-prone manual entry process.



The simplest step in this process is submitting each expense, whether pre-calculated or unexpected, and attaching receipts or records of purchase. Expense reporting tools have many advanced features for submitting expense items, including direct bank import of commercial and personal card transactions, global capability (for languages, currencies, tax regulations, etc.), automatic expense categorization based on company policies and type of spend, and more. Integrating with corporate cards programs is an important element of streamlining expense reporting. Some providers also offer their own travel card program for companies that do not yet have a corporate card program, such as smaller organizations.

With increasing global business travel, some TEM solutions provide in-solution translators and custom translations for specific phrases and words within the system, visible to all employees who work in any given language. Some solutions also offer integration with tax and advisory services. These provide increased visibility into potential areas of tax compliance failure, immigration law liability, and necessary compliance procedures (e.g., payroll withholding tax) each time an employee books a trip through the company's TEM solution. This type of integration is important, as breaches of tax or immigration laws can mean that companies do not uphold their duty of care towards their employees. It also ensures that tax or immigration issues don't prevent employees from carrying out business while they are traveling.

### **Approval, Reconciliation, and Expense Reimbursement**

Level Research's survey results show that expense reporting approval workflow is considered the most valuable TEM feature by most organizations, see Figure 8. This aspect of TEM automation saves employees and managers valuable time by speeding up approvals from managers and reimbursements to employees. Configurable routing and customizable policy triggers ensure that reports are properly routed with little manual intervention, and automatic escalation settings ensure that requests are approved in a timely manner. Mobile approvals provide on-the-go managers with a way to manage expense approvals via smartphones, tablets, or any device with email connectivity. Administrative features speed up and control the process with support for bulk actions, comment fields, and central administration and reconciliation of company card transactions.

Improved approval workflow processes result in shorter processing times for reimbursements, thus increasing employee satisfaction and productivity. While organizations use different methods to reimburse employee expenses, most



prefer direct deposit, see Figure 9. Many TEM solutions support direct deposit reimbursement or integrate with clients' payroll systems. The solutions also allow employees to track the progress of their payment through every step of the submission, approval, and reimbursement cycle.

### Post-Trip Analysis

Gaining access to T&E data has proven to be a significant hurdle in achieving cost control and compliance for many companies. It is difficult to control T&E spending without the ability to identify patterns in travel activity. Companies that employ TEM solutions have instant, real-time access to key metrics and reporting data to analyze spending at various levels, including employee, department, and supplier. This variable data can be analyzed to eliminate wasteful expenditure through control measures and regular audits. Companies can also identify frugal and problem users to ensure that approvers and auditors are focusing their attention on the right individuals or departments.

Post-trip analysis tools provide purchasing managers with invaluable information regarding a company's overall T&E spending habits, which is yet another compelling feature of TEM solutions. There are also standalone T&E auditing solutions available that further relieve the pressure on AP staff by evaluating spend reports to determine weak spots in policies and employee policy adherence.

Many TEM solutions also bring some of the back-end reporting functionality to front-end processes. When submitting expense reports, employees can provide business ratings and reviews to improve spending techniques, enhance vendor relationships, and help select preferred vendors.

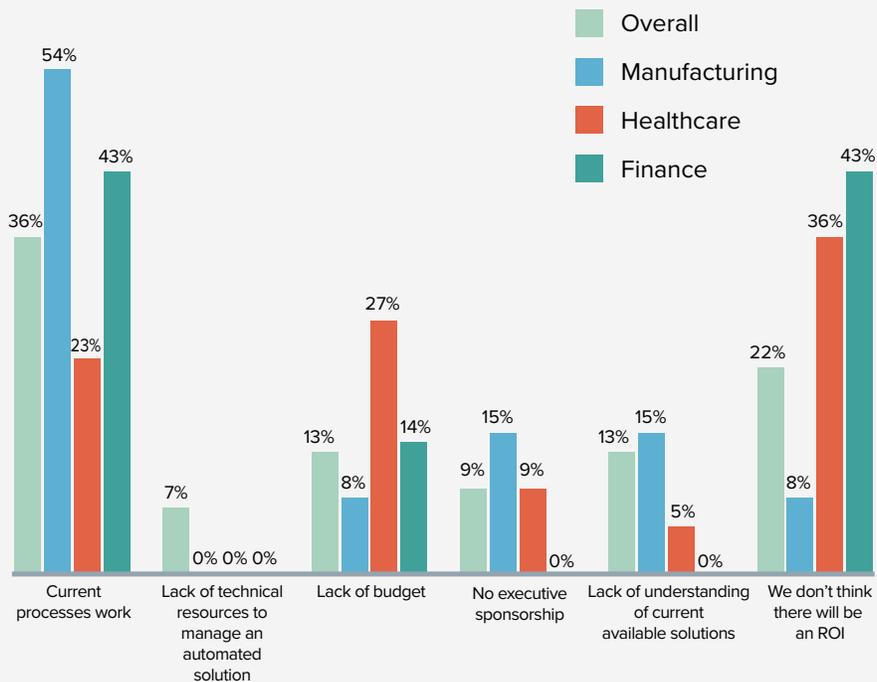


## Overcoming TEM Adoption Barriers

Despite the benefits of TEM software, approximately one-quarter of respondents reported they still process expense reports using manual methods. When asked why they have not adopted a solution, the primary reason reported was a belief that current processes are working, followed by a lack of budget, see Figure 6.

FIGURE 6

### Top Obstacles to TEM Adoption by Industry



#### Most Organizations Do Not Automate Because of a Belief That Current Processes are Working

*“What is the primary reason your organization has not automated its expense management process?”*

&

*“Please select the standard industry description that best fits your organization.”*

Some of these barriers vary by industry. Manufacturing companies are more likely to resist automation because of a belief that current processes work as well as a lack of understanding regarding available solutions. These barriers are likely due to the industry’s slow pace at adopting back-office technology in general, as well as their reluctance to disrupt their operations in any way that could affect their complex and often delicate supply chains. On the other hand, the finance industry is more concerned with how the solution would affect their resources,



as they were the most likely industry to believe there would be no ROI from adoption. This barrier somewhat reflects the industry’s general focus on financial security and quality investment. Healthcare professionals are also concerned with the financial aspect of adoption, as they list a lack of budget or no ROI as their reason for not automating. This could be due to the fact that 40 percent of healthcare organizations reported annual revenue of under \$100M, and they likely have fewer resources with which to invest in technology.

In any of the above cases, Level Research believes that the main issue is a lack of education in several areas. The following items illustrate some of gaps in knowledge that lead companies to continue with manual expense reporting—and how to overcome them.

*Barrier: Current processes are working*

*Solution: Benchmark the current state against a fully automated state*

Organizations should evaluate their current state to understand the possibilities available to them in expense management efficiency, and to understand how broken these current processes are. A few current-state items organizations can measure include processing costs per expense report, time spent by traveling employees, approvers, and accounting processing expense reports, and the frequency of reporting errors and process issues.

In truth, current processes lead to many problems for employees, cash flow, and business success. One of the best ways to understand that effect is to look at the actual cost to process an expense report. Table 1 illustrates processing costs based on how much automation a company has. In this example, “Some Automation” refers to companies that have adopted some T&E-related software, such as an online booking tool. A fully automated process involves a holistic TEM solution. On average, costs can drop from over \$25 dollars per expense report to under \$7 with an automated system.

TABLE 1

Type of Processing	Average Total Cost
Manual	\$26.63
Some Automation	\$17.31
Full Automation	\$6.85



*Barrier: Belief that there will be no ROI*

*Solution: Measure the cost of manual processing*

This belief that there will be no ROI tends to come from both a lack of understanding of the value of TEM software, and a lack of awareness at the actual costs of the current state. Organizations should leverage their findings from their current state assessments to identify their current costs, and then use this data when pricing TEM solutions. Typically, they will find that the long-term ROI—in both hard and soft savings—far outweighs the cost of automating.

*Barrier: Lack of budget*

*Solution: Take a broader look at the market*

As previously noted, there is an increasing number of affordable TEM options available on the market today. These solutions are tailored to the more restricted resources of companies in the small and lower middle market (LMM) revenue segments. Level Research has also found that many companies believe some back-office solutions are more expensive than they actually are, usually because the companies are only familiar with the expensive pricing of big-box providers. This is true of TEM software. The best way to understand how a solution will fit inside an organization's budget is to explore as many options as possible, particularly among solutions designed for smaller companies.

*Barrier: Lack of understanding of available solutions*

*Solution: Leverage educational material & talk to providers*

Fortunately, readers of this report have already taken one of the necessary steps to overcoming this barrier, which is to seek education on TEM software and the value of an automated process. Another solution, as with when overcoming “a lack of budget” adoption barrier, is to speak with a variety of TEM providers. This will help organizations expand their perception of what a TEM software should be able to do—and which type of solution is right for their needs.

*Barrier: No executive sponsorship*

*Solution: Present educational findings*



The best way to gain executive buy-in to technology adoption is to educate shareholders. This means leveraging the findings of all the steps above to present three vital things:

- » The costs, pains, and risks of the current state
- » The ROI, value, and competitive possibilities of the future state
- » The use case of TEM software (features, functionality, and what can be automated)

These elements should be included in any business case for a TEM solution adoption, and they depend upon an organization carefully evaluating their own business needs in order to make an educated and strategic solution choice. In order to further assist with this choice, the following profiles summarize the features of the travel and expense management industry's leading providers.



## Certify

Certify has offered expense management solutions since 2008, and its software brings mobility and secure expense reporting to customers across several demographics—from single users to global Fortune 500 companies. Certify offers a fully automated expense system with several robust features, from pre-trip booking and planning to post-trip reporting and analytics.

Founded	2008
Headquarters	Portland, ME
Other Locations	San Diego, CA
Number of Employees	300+
Awards / Recognitions	PC Mag Editor’s Choice for Best Expense Report Software of 2015 - 2017; 5 Top Business Travel App; 9 Must Have Apps for Business Travel; G2Crowd Awards for Highest Satisfaction for Expense Management Software & Highest Rated for Ease of Use, 2014 - 2017

### Solution Overview

Certify’s cloud-based automated system provides a standard data interchange service for easy sharing between HRIS systems, payroll platforms, banking and payment systems, corporate credit cards, and CRM platforms. It offers integration with QuickBooks Pro and QuickBooks Enterprise, enabling users to link data from Certify with QuickBooks at no additional cost. Certify also offers integration with Sage, SAP, PeopleSoft, NetSuite, Oracle, and many other ERP platforms.

Certify regularly conducts VeriSign Extended Validation SSL and Malware Scanning, and it is PCI compliant. It also completes quarterly PCI compliance certifications with ControlScan and is a SSAE 16 certified data center through Rackspace.

Certify offers a global solution that is available in 64 languages and more than 140 currencies. Certify uses daily closing currency conversion rates from SIX Financial, the Swiss operator of Europe’s most important independent financial exchange. Certify also offers local support phone numbers for eleven international locations.



## Travel and Expense Management

Certify Travel facilitates online booking through its embedded booking engine to provide a fully integrated travel booking and expense reporting solution. It offers two service levels designed to meet the travel requirements of smaller companies and mid-sized to enterprise companies— Certify Travel for Small Business and Certify Enterprise Travel, respectively. Unique to Certify, the enterprise booking solution can be integrated with any travel management company as the preferred ticketing provider. Certify also works directly with travel management companies and corporate travel agencies to import travel-booking data into the system. With Certify Travel, organizations can configure their hard and soft travel policies, controlling the travel options displayed to the end users. Approvers see all policy violations, and have a number of actions available as part of the approval process. Certify also offers a pre-trip notification, which gives managers 24-hour notice of when travel is booked, and allowing them to decline or edit the travel information.

Certify Mobile offers receipt capture and mobile report creation capabilities for traveling employees, as well as the managers who approve expense reports. Using patent-pending OCR data extraction technology, ReceiptParse™ AutoFill automatically populates the expense data from a receipt. This data is sent to the user's virtual Certify Wallet, where it can be reviewed and added to the expense report. ReceiptParse™ is available to all users at no additional cost, and is over 90 percent accurate at parsing receipt data automatically. In addition, Certify Mobile Instant Policy Check provides a measure of compliance enforcement at the point of purchase, instantly evaluating currency type and expense category amount against company policy.

Users without smartphones or tablets can submit receipts and expenses into Certify via email, scan, upload, fax, web camera, and even text message. All of these methods use ReceiptParse™ to automatically extract expense data for report creation. Further expense creation features include the ability to manually enter expense details for cash expenses when there is no receipt, such as for tips or taxi rides. A user can add meal attendees using stored attendees from prior transactions, and can calculate mileage expenses using Google Maps. Certify Mobile also works offline, syncing expense receipt data the next time the user is connected to the internet.



During the report creation process, traveling employees can use Certify SpendSmart™ to help improve company spending. The application allows users to quickly rate and comment on a product or service while completing an expense report. These ratings and reviews are shared with the rest of the company and are available to other Certify users. Organizations gain knowledge and valuable insights for selecting preferred vendors and maintaining vendor relationships.

The Auto Expense Report feature allows users to easily and quickly create expense reports, view and edit draft expense reports using the Certify Mobile app or by logging into their Certify online account, and view any inquiries that may be tied to an expense report. Managers have all of the same capabilities, as well as the ability to approve an expense report.

All out-of-policy expenses are flagged for manager review. Items that are flagged include potential duplicate expenses and missing receipts, among other violations. Certify offers routing options for expense report approvals: flexible and locked approval workflows. The flexible workflow allows users to simply select their approver for the report—ideal for small businesses. Locked approval workflows give large clients the opportunity to set defined approval paths with various routing rules, including approval limits and special approval rules. Either workflow process can be easily configured for any client at no additional charge.

Through Certify ReportExecutive™, administrators can specify a company-wide schedule for automatic expense reports to be completed. When the specified day arrives, all expenses and receipts in each user's Certify Wallet are merged into a new expense report. Each user is notified by email of this event and instructed to review the expense report and submit it for approval. After approval, Certify offers an ACH feature that provides permission-based access to reimburse employees from a company's chosen bank account.

To ensure long-term data protection, Certify never purges its system, allowing users to access their receipt, expense, and report data for as long as they are with Certify. While this content is stored in the cloud, Certify Receipt Backup provides onsite storage of all expense reports and receipt images that pass through Certify. The company also offers a receipt backup service to allow companies to download and locally store their data.



Certify's enterprise dashboard reporting suite identifies spending patterns, preferred vendors, average spend (by employee, department, or across the company), and reviews policy violations with a host of audit reports. Providing valuable insight into spend management, the Certify reporting suite includes reporting for travel and expense review, financial oversight, auditing, and data integration. Custom outputs are also available.

### **Implementation and Pricing**

Typical full-service implementations take between 4 and 6 weeks and include all the services needed to configure Certify, test the product, train users, launch the solution, and support users. After implementation, Certify offers complimentary live user training via webinar, video, and onsite training, and complimentary live user support through its Customer Happiness Team. Depending on the size of the company, the software pricing structure is based on either a per-user or a per-transaction basis.



## Chrome River

Chrome River is a leading provider of expense and invoice management solutions, with extensive experience working with global companies across many industries. The company’s TEM tool, Chrome River EXPENSE, offers an easy-to-use interface, flexibility to accommodate complex expense policies and workflow routing, and advanced management reporting. It also offers open integration with any tool and 3rd-party system, including financial systems, travel booking tools, travel management companies, and corporate credit cards. The application framework is designed as a scalable solution that can meet the unique needs of each customer, regardless of size.

Founded	2007
Headquarters	Los Angeles, CA
Other Locations	London and Sydney
Number of Employees	330+ FTEs
Target Verticals	Legal, Professional Services, Financial Services, Technology, Healthcare, Manufacturing, Nonprofit, Higher Education, and more.
Partners / Resellers	U.S. Bank, Sabre/GetThere, Egencia, Ellucian
Awards / Recognitions	Ranked six consecutive years on the Inc. 500/5000 list; ranked five consecutive years on the Deloitte Technology Fast 500

### Solution Overview

Chrome River EXPENSE is a SaaS-based solution that is designed for mid-sized and large global organizations worldwide, offering support for currency conversion, multiple languages, global taxation (VAT, GST, PST, HST), and local requirements such as mileage and German Per Diem. Chrome River integrates with ERP, financial, and legacy systems through secure file exchange (delimited data via an SFTP server) or via web services. Chrome River offers fully mobile solutions through HTML5 responsive web design, providing full functionality and a consistent user experience across all devices and browsers.



Chrome River's applications and operating environment are subject to regular, comprehensive security and vulnerability testing by leading testing and auditing organizations. Chrome River's internal policies and procedures are audited to SSAE 16 SOC1 and SOC2 Type standards. Chrome River has achieved ISO 27001 certification and is registered with the U.S. Department of Commerce Privacy Shield for both EU and Swiss data transfers. In addition, Chrome River's hosting providers monitor all system level software for security updates and apply them in accordance with secure procedures. Chrome River's solution also offers several features for global business operations, including support for multiple languages and for VAT reporting requirements.

## Travel and Expense Management

Chrome River's travel booking integration allows organizations to import from any travel management company (TMC) and many online booking tools (OBT). Once data is imported, Chrome River offers a "Trips" feature that allows all expense items to be grouped together within the airfare departure and return dates, streamlining the expense reporting process. These items can include any expense incurred during the trip window, including cash out of pocket and items not booked through the TMC or OBT. Once imported into Chrome River, travel items can be automatically merged with the associated credit card data and receipt images to ensure accurate and efficient expense report creation.

Chrome River's business rules engine provides expense policy compliance management for complex organizational requirements. The solution allows expense reports to be routed for approval based on specific criteria, such as manager, department, amount, expense type, client, project, matter, grant, or any other logical criteria. Items can be routed independently or grouped together for approvals. Approvers receive an email from Chrome River and can choose to approve or deny transactions, either from within their email or directly in the web application. Expense exceptions are flagged in red with exception notes provided by the expense owner, and routed to the appropriate approver based on the exception type.

Traveling employees can add receipts using a number of methods, including taking pictures with a mobile device then using the "Snap & Send" email feature, or loading the receipts directly from the web app. Users can also scan and attach, email, and fax receipts. Chrome River also has partnerships with Uber and Lyft; for customers that allow employees to use the services, the transaction receipt is automatically imported from the user's Uber/Lyft business account.



Transaction items can be automatically populated using OCR technologies, as well as by importing data from purchasing cards, cash advances, pre-authorizations, travel bookings and charges, and personal accounts. Users can easily create expense reports using the application's drag and drop functionality.

Chrome River enables companies to pay employees in their chosen format, via checks or ACH transfers, either monthly or bi-weekly with regular pay, or as soon as expenses are approved. Chrome River's DIRECT PAY automatic and electronic payment service handles the end-to-end expense payment process and transfers funds directly into an employee's bank account or onto corporate cards.

Chrome River's reporting and analytics tools support reporting for both inquiry reports and analytics reports. Inquiry reports are user-specific, and allow clients to gain insight into users' expenses and find ways to reduce their impact on company spending. Analytics reports are higher-level metric reports that can be used by managers to analyze company spend.

Chrome River also allows users to customize standard reports to feature alternative metrics. Users can perform advanced functions with the data, including sorting, filtering, calculations, charting, roll-ups, and pivots. Chrome River also offers the DATA EXPLORER tool, a visualization tool that helps organizations simplify their data to make information-driven T&E spend decisions.

Chrome River recently launched Chrome River PROSPER, which integrates with an organization's existing Salesforce or other customer relationship management (CRM) systems to enable sales and finance leadership to accurately link their T&E spend with sales results. PROSPER helps organizations understand which T&E expenses are driving revenue and which ones can be reduced or eliminated, and includes easy-to-view dashboards and a map-based interface.

### Implementation and Pricing

Implementation time varies depending on the complexity of the organization's compliance rules, approval routing processes, and integrations with surrounding systems. After implementation, Chrome River offers customer support through an online Chrome River Help Center, which includes customer forums and support ticket logging/tracking available 24x7. The company also offers Chrome River University, an online training environment that gives customers an opportunity to refresh their own understanding of the solution and educates new employees.

Chrome River offers a number of subscription-based pricing models dependent



on usage volume. The transaction-based model is priced according to expense report volume, and the enterprise-level subscription model is based on total employee headcount.



## Coupa

Founded in 2006, Coupa is a leading business process automation software provider based in San Mateo, California. Coupa is a cloud platform for business spend that automates processes, such as P2P and source-to-pay (S2P), in order to help companies get full visibility and control over all spend. Coupa’s TEM product, Coupa Expenses, is tailored for middle-market and enterprise clients. Coupa Expenses has benefited from significant investments in T&E-focused technology; the company acquired Xpenser in 2012 to expand domain expertise and capabilities in the expense management space, and TripScanner in 2015 in order to offer an open booking solution. Coupa Software went public (NASDAQ:COUP) in October 2016.

Founded	2006
Headquarters	San Mateo, CA
Other Locations	15+ global locations across North America, EMEA, and APAC
Number of Employees	800+ FTEs
Target Verticals	Financial Services, Healthcare, Energy, Manufacturing, Retail, Professional Services, Food and Beverage, and Technology
Partners / Resellers	KPMG, Deloitte, Accenture, Sabre, Egencia, and more
Awards / Recognitions	Level Research 2016 P2P Automation Navigator; Gartner MQ for P2P Suites 2016; Forrester 2017 eProcurement Wave; Forrester 2017 Top 6 SaaS Breakout Vendor

### Solution Overview

Coupa Expenses can integrate with any ERP by providing REST-based APIs and Flat File Formats that transfer expense report data from Coupa’s solution to the ERP. Coupa also integrates expense report data with ERPs, such as NetSuite (using Suite Script technology), to create vendor bills or expense reports within the ERP. Coupa Expenses supports VAT reclaim to facilitate compliance with tax policies around the world, as well as multi-language, multi-currency customization options. Coupa also provides a native mobile application for iOS and Android mobile phones, tablets, and computers.



## Travel and Expense Management

Coupa Expenses allows users to upload receipts in several ways. On mobile, users can take a picture of a receipt directly from the app or upload receipts from the phone's camera roll. Alternatively, users can browse files on their desktop or drag and drop them into the user interface. The solution uses OCR to automatically parse receipts and create expense lines. Users can also email receipts directly into the digital wallet, where they are automatically converted into expense lines with Coupa's email forwarding and parsing feature. Coupa's SmarterTrip location-based notifications automatically creates an expense for review based on where a user's phone reports its location. With Coupa's voice expensing feature, expense lines can be created simply by speaking into the mobile app.

Receipts can also be uploaded through travel integrations. Coupa Expenses integrates with leading Online Booking Tool (OBT) providers such as Sabre GetThere, Egencia, and TripActions, to import trip itineraries and receipts and automate expense line creation. Coupa groups expenses by trip and matches expense lines with the corporate card feed. After users obtain pre-trip authorization and book through their approved travel provider, the expense lines flow directly into Coupa from the travel management provider and generate approval workflows based on the policy conditions set within Coupa.

Coupa also receives electronic receipts from over 300 supported travel providers. These receipts are automatically parsed to create expense lines with itemized details. This integration works with major airlines (United, American, Delta, Lufthansa, etc.), major hotel chains (Marriott, Hilton, Starwood, Holiday Inn, etc.), major travel management companies (BCD travel, Carlson Wagonlit Travel, Concur Travel, etc.), and modern travel providers such as Uber, AirBnB, and Lyft.

Administrators can set policy limits on expense reports at a granular level, including by category, receipt amount, or chart of accounts. Administrators can also set policies based on multiple conditions and tailor policies by user groups, such as executives or employees by region. Policies are enforced by configurable approval chains and triggered by policy violations. Furthermore, with submission blockers, policy violations and/or other conditions, such as missing receipts, can prevent expense report submission altogether.

Coupa Expenses allows administrators to create dynamic workflows directly within the user interface based on a set of conditions, such as expense report



amount, cost center, or custom fields. For instance, companies can set the amount of time that an expense report will wait for approval before it becomes overdue. If approvals are overdue, then the expense report will automatically move on to the next manager in the approval hierarchy.

During expense report review, Coupa Expenses flags any potential issues prior to escalation. For example, administrators can set conditions for easy per diem rates and approvers can view spend according to date and category while approving expense reports. Spending charts help approvers visualize spending patterns prior to approving expense reports. Coupa's Advanced Auditing Triggers feature allows companies to selectively route expense reports to audit by setting trigger conditions such as expense report age, policy violations, total amount, or report score.

Coupa's Real-Time Reporting tool allows companies to manage spending by categories such as hotel location, travel route, and rental car location. For corporate meals, gifts, and events, Coupa's Attendee Tracking gives users the option to search for and add attendees to expense reports with additional details, such as title and company.

Employees can be reimbursed through an integration compatible with any payroll/HR system. Reimbursements can also be set up through an ACH, electronic print check, or iWire to 170 countries through Coupa Payments. Coupa integrates directly with all major commercial cards and personal cards. Administrators can also set approvals to control and monitor payments.

Coupa's offers T&E benchmarking feature to track internal metrics such as expense policy compliance or corporate card usage over time. The benchmark dashboard provides actionable recommendations based on a company's performance against its peers. Coupa also uses behavioral influence indicators (e.g., "Frugal Meter" or "Over Limit" gauges) throughout the solution to correct inefficient employee activity and improve future behavior.

## Implementation and Pricing

The duration of the implementation depends on the size of the company and the complexity of integrations, but typically lasts 2-4 weeks for a mid-market customer and 3-4 months for an enterprise customer. As part of the implementation, customers work directly with the implementation team to define success metrics for the solution, and Coupa continues to work with the customer on achieving these success metrics after go-live.



When customers join Coupa, they are offered a free platform training certification course, which includes a one-day onsite or remote training that covers the latest administrative capabilities of the solution, including lecture, demonstrations, and hands-on exercises. Coupa also offers live role-based training, where weekly courses focus on a different role such as buyer, accounts payable, or administrator. All Coupa users are allocated a dedicated Customer Success Manager during and after implementation. Coupa users can also access a support hotline and contact information for sites around the world that offer 24/7 support.

Coupa Expenses users have the option to pay on a per-expense report basis with unlimited users and no overage penalties, or on a per-user basis, with unlimited expense reports per user.



## Paramount Workplace

Paramount Workplace is a leading global provider of web-based ERP workflow automation solutions for midmarket and enterprise organizations. Paramount WorkPlace develops, sells, and supports advanced web-based and native mobile requisitioning, procurement, AP automation, and expense solutions for mid-market organizations across a range of industries, worldwide. The user interface offers flexible Procure-To-Pay automation and robust expense reporting that is easy for employees, effective for management, and powerful for accounting.

Founded	1995
Headquarters	Detroit, Michigan
Other Locations	Georgia, North Dakota, Vermont, Washington; Ontario, Canada
Number of Employees	35-40
Number of End Users	750 customers, 131,000 users
Partners / Resellers	RSM, Professional Advantage, Tribridge, BDO Canada
Awards / Recognitions	President's Club for Microsoft Dynamics; Blackbaud Financial Edge and NXT Procurement Platform of Choice; Microsoft Gold Development Partner

### Solution Overview

Paramount WorkPlace's solution can be deployed in SaaS/cloud-based and on-premise environments. It is offered as a stand-alone solution as well as a certified extension of many leading ERPs. Paramount WorkPlace offers seamless out-of-the-box integration with Microsoft Dynamics (GP, NAV, SL, and AX), Sage (100, 300, 500, Sage Intacct), Blackbaud (Financial Edge and Financial Edge NXT), Acumatica, and Oracle-NetSuite via ERP-specific APIs. The solution offers multi-language and multi-currency support as well as global taxation options (including HST, VAT and GST), facilitating T&E expense management for global transactions. For system security, the solution leverages roles-based controls and several industry-driven authentication protocols including single sign-on, LDAP, active directory, OAUTH2, and two-factor authentication.

### Travel and Expense Management

Paramount WorkPlace offers pre-trip authorization with approval workflow capabilities. The WorkPlace Approval Workflow engine supports transaction-based or independent line-level approvals through unlimited approval steps



and paths. Additional approval options include project, position, parallel, and ad-hoc approvals. Approvers have their choice of approving travel plans through the application, by responding to email notifications, or by using the WorkPlace mobile app available for Android and iOS. Approved pre-trip travel requests are available for users to convert to expense reports, providing full visibility into the original approvals.

The Enterprise Travel Request solution provides the user with a cash advance functionality, which includes account tracking within both WorkPlace and integrated ERP balance sheets. Cash advance balances are automatically deducted as employees enter new expenses into the solution.

When traveling, users can submit expense reports through the WorkPlace web-based application or via the WorkPlace Mobile Application. With direct camera integration users can take a photo of a receipt or attach an existing photo to an expense item. The solution leverages OCR data capture technology to extract receipt details, and these details are automatically attached to expense reports; the date, description, amount, and receipt images are assigned to the expense item. WorkPlace's mobile application features an Entry Assistant that helps the user correct any information on the expense sheet with additional expense entry options from which the user can choose.

GL distributions and line splitting capabilities ensure that credit card and expense lines can be quickly and accurately allocated to multiple G/L accounts, projects, expense types, or other conditions. Users can create their own list of expense types specific to their business needs, with the option to define fixed price, daily per diem limits, rates by region, and other standard policy enforcements. Standard travel and expense policy controls are complimented by the solution's custom business rules engine, which can be configured to support rule-based warning or error messages based on one or more field-level conditions.

WorkPlace Travel and Expense Attendee Tracking features enforce compliance for both internal and external users' expense reporting requirements. External users can be quickly and easily identified by name, title, and company, and the solution offers the ability to add custom attendee types, expense categories, and products based on the specific needs of the organization. The Attendee Tracking feature comes with an integration option for the National Provider Identifier list, which allows companies to search external organizations by NPI number, name, and address data. This helps to streamline data entry and compliance for regulatory reporting requirements, such as the Open Payment/Sunshine Act. The



solution also offers mileage tracking via a Google Maps integration.

The Workplace solution offers a credit card management interface to help users manage expenses purchased with both corporate and personal cards. WorkPlace directly integrates with any corporate cards that support Open Financial Exchange (OFX) communications. The solution also features a configurable file-import map capability to accommodate client-specific banking requirements. The solution can import Level 3 data, including merchant name, address, invoice number, and line item details such as item description, quantity, and product codes. Imported credit card expenses are automatically distributed to the correct users based on card assignments to ensure they are processed quickly.

### **Implementation and Pricing**

Implementation of Paramount WorkPlace varies depending on the organization's size and the licensed solution. The typical go-live duration is 60-90 days. Paramount WorkPlace and authorized resellers offer one-to-one comprehensive training and department-wide training, as well as training workshops and on-demand custom training. Customers receive unlimited support, including free technical support via toll-free phone, email, or chat, and access to an online customer center with learning materials.

Pricing structures entail perpetual annual license or monthly SaaS payments.



## SutiSoft

Established in 2006, SutiSoft is a global provider of TEM, human resource management (HRM), wireless expense management (WEM), and customer relationship management (CRM) platforms. SutiSoft offers configurable expense management software through its TEM solution, SutiExpense, which launched in 2009. SutiExpense also has its own solutions to manage other business processes, including invoice payments and reimbursements, as well as open API integrations with CRM, HRM, and other internal and external platforms.

Founded	2006
Headquarters	Los Altos, CA
Other Locations	Hyderabad, India
Number of Employees	160
Target Verticals	All verticals
Partners / Resellers	Augmenter (Europe and Middle East)

### Solution Overview

SutiExpense is a SaaS solution catering to organizations of all sizes. SutiExpense offers a range of integration options with third-party ERP applications such as Oracle, SAP, Sage, QuickBooks (desktop and online), and Microsoft Dynamics, as well as payroll applications such as ADP and Paychex. The solution is monitored 24x7 by a security team and adheres to ISO and SOC standards and compliance requirements.

SutiExpense offers comprehensive mobile functionality through a native app available on both iOS and Android. The solution's responsive design user interface can accommodate any mobile or tablet screen size.

### Travel and Expense Management

Users can book flights and hotels, rent cars, and create travel itineraries with SutiExpense's travel booking capabilities. In addition to providing its own native booking solution called SutiTravel, SutiExpense also integrates with Egencia and other popular booking solutions. SutiExpense supports pre-trip requests and includes functionality for cash advances for both pre-trip requests and expense reports, allowing companies to reconcile money owed or returned. Once employees travel, they can convert approved travel plans into their expense report. Managers can see the approved request amount when approving the actual report.



SutiExpense's platform enables users to prepare expense reports from anywhere. To submit receipts, they can take a picture of the receipt and upload it directly from their smartphone, or submit receipts via email, fax, or scan. Once the receipt is in SutiExpense, users can automatically create line items and attach receipts directly to the expense report by expense line item or by report, based on the company's rules. Receipts are automatically attached to the line item through the auto-receipt matching functionality or by drag-and-drop from the user's receipt repository. SutiExpense uses OCR technology and additional logic to read receipts. To enable the most accurate and efficient expense report creation, information is verified by cross-checking OCR data with additional sources, such as Yelp. The automatic receipt matching function matches receipts to specific line items or credit card transactions. The solution also integrates with Google Maps for distance calculations and real-time GPS tracking with maps and supporting receipts. Voice to expense functionality is also available for expense report creation.

As users put together their expense reports, the solution allows users to allocate charges to different cost centers, projects, or clients by percentage or by dollar amount. SutiExpense features additional, built-in support for project/client coding, Sunshine Act compliance (via NPI number capture), and tax management and recoverability. The solution also supports foreign currencies, and companies can capture and calculate taxes including HST, VAT, and others. Per diem support is available through the use of the GSA rates or configurable rates.

Spend limits and per diem rates can be loaded into the solution, and rules can be created based on specific roles. Based on the rules configured, the platform allows for approval flows of expense reports based on thresholds and compliance with company policies. The solution includes configurable controls around expense limits and rules, and supports hard and soft stops for rules that require additional out-of-policy explanation.

Approvers receive an automated email notification when an expense report is forwarded to them for approval. In situations where regular approvers are unavailable, the solution allows for alternate approvers to be assigned. Approvers can reject expenses by line item and provide comments to the submitter, with only the rejected expense going back to the submitter for edits and resubmission. Once an expense report has been approved or rejected, the submitter will receive an email notification providing the details. SutiExpense offers standard eSignature, static, and dynamic signature verification when



approving expense reports. Additional options during approval include biometric authentication and touchpad approvals.

SutiExpense offers a number of alternatives for expense reimbursement. In addition to accommodating payment through accounting or payroll systems with direct integration or file export, SutiSoft directly integrates with banks/ACH providers to reimburse employees. Personal credit card integration is also supported through a 3rd-party aggregator. SutiExpense integrates with all major corporate card providers, including MasterCard, Visa, AMEX, Diners, and WEX. Where available, the solution supports Level 3 data.

SutiExpense's post-trip analysis and expense report auditing tools provide companies with detailed insight into travel and expense spending. SutiExpense integrates with SutiAnalytics, an analytics solution that supports charts, graphs, dashboards, and complex queries. Spend prediction models are also available. Search criteria can be saved for future use and shared with other users as needed, enabling collaboration and streamlining efficiency. Data can be exported in pdf, csv, and xls formats.

## Implementation and Pricing

The implementation time for SutiExpense's solution ranges from one week to one month. Upon implementation, SutiExpense offers a number of training options, including web-based, end user and finance/administrator training modules, as well as recorded training sessions, video guides, and custom quick guides. Customer support is provided 24x7 by email and Monday-Friday 6:00 am - 6:00 pm (PST) by phone.

SutiExpense is available through two pricing models. One model operates on the basis of a per user/month basis, applying only to active users (i.e. users who submit an expense report during the month). The second option is per report pricing, where the transaction is priced according to expense report volume.



## The Final Step: Optimizing Travel Data Management

Using a booking automation tool is a best practice for any company trying to manage a large amount of employee travel spend. However, even with the best intentions and a leading booking solution, some travel-related spend can fall outside the booking solution's control. It can be difficult for all the parties—from the corporation to the expense management tool to the TMC—to manage all activity and booking data in one system, particularly when larger companies and a large amount of data are involved.

One way to fix this problem is to take a holistic approach to travel booking and expense management with a supplementary tool, such as a booking data aggregation solution. This tool fills in the gaps between booking and reporting, bringing companies more control over and insight into travel spend management. The following profile and case studies illustrate one such tool, Traxo CONNECT, which works with corporations, TMCs, and TEM software providers to facilitate more security and visibility in employees booking activity.

### Traxo for Holistic Travel Booking Control

Traxo was founded in 2008, primarily as a consumer-facing application that assisted with itinerary management. The company shifted to a B2B model after identifying a need among organizations for a tool that enabled them to better manage their travel booking data. Today, Traxo offers a dynamic, unique solution that handles data aggregation and travel itinerary processing.

Many companies face a problem in controlling booking activity, as business travelers often book some or all of their business travel outside of their organization's official channel. For example, an employee may book a flight through a sanctioned TMC or TEM system, but go to another site or platform to book their hotel. Some employees do this because of familiarity, convenience, or a belief that they can save money. Whatever the reasons, these off-channel bookings can create issues for the TMCs, TEM providers, and the organizations and employees themselves. In these instances, the agency in charge of managing travel spend has no visibility into the booking data, as it occurred outside of the official system. In addition, if hotel reservations are booked outside of the system, a travel agency may not be able to locate their employees in the case of emergency, which can compromise a company's duty of care liability. Traxo's solution, Traxo CONNECT, solves these problems by aggregating all booking and spend data processed outside of a controlled T&E environment and



software. Traxo CONNECT then integrates the data with the proper system for cohesive, consolidated T&E data management and reporting.

In a typical process, Traxo pre-populates expense reports with the aggregated travel expense details, eliminating the need for business travelers to track down the information from different sources and type it into their expense reports. Traxo's API integration enables it to feed this data into other third-party systems, such as a booking tool, a TEM solution, a risk management or duty of care service, a TMC, or a reporting tool.

There are three different ways in which Traxo CONNECT aggregates and processes data. One is through its email parsing solution. Traxo provides clients with a private, custom-branded email to which business travelers can forward all travel itineraries that were created outside of an official channel. The data from these itineraries is extracted and integrated with the proper TEM or TMC solution.

Another way Traxo aggregates data is through direct supplier integrations. For example, Traxo CONNECT integrates directly with United Airlines. If a business traveler books a flight directly on United's website instead of the proper system, they can check a box on United's booking form and United will send the details of the booking to Traxo. Traxo CONNECT will parse, structure, and normalize the booking data and send it back to the appropriate TMC or TEM solution. Traxo's other direct supplier integrations include Lufthansa and Booking.com for Business.

Traxo's third service, which was recently launched, is Traxo FILTER, which allows clients to set up filtering rules within their own email server. Traxo FILTER matches incoming travel booking confirmation emails and hotel folio emails against these settings, as well as against a list of over 5,000 email addresses from travel-related vendors. These confirmation and folio emails are automatically sent to Traxo CONNECT for processing and integration with clients' systems. Traxo FILTER eliminates the need for an employee to forward a booking confirmation or manually enter the data into the TEM tool.





<b>Client</b>	Chrome River
<b>Industry</b>	Technology
<b># of Employees</b>	~260
<b>Headquarters</b>	Los Angeles, USA

## Case Study #1: An Expense Management Provider

Chrome River is a leading provider of travel and expense management technology. The company offers many leading features for controlling the travel and expense management process, from travel plan approval workflow support to reimbursement. However, despite Chrome River’s competitive solution, the company recently identified an area in its functionality that it wanted to upgrade from competitive to leading—the way in which clients managed hotel folios during expense report creation. Although users could forward hotels folios to the Chrome River solution, in order to accurately report hotel receipts in their expense reports, they had to break the folios down by each line item.

In order to streamline this process for users, Chrome River decided to engage with Traxo. Chrome River now uses the Traxo FOLIO solution within its expense management application to capture, structure, and standardize the itemized detail included on hotel folios that travelers receive upon checkout. This occurs when Chrome River’s business users forward a hotel folio email or PDF to Chrome River. The Chrome River solution uses the Traxo FOLIO service to parse the data and automatically import it into the user’s expense report for that trip. This in turn enables Chrome River to associate specific line item charges (e.g., minibar or room service charge) into a master category (e.g., Meals), which provides Chrome River’s clients with a much more granular view of their true travel spend.

Automating this process greatly benefits Chrome River’s end users, who no longer have to manually enter all the itemized details into their expense report. This improves overall usability by making the expense process much faster and more user-friendly, while simultaneously increasing the accuracy of the data.





<b>Client</b>	NexTravel
<b>Industry</b>	Business Services
<b># of Employees</b>	35
<b>Headquarters</b>	San Francisco, USA

## Case Study #2: A Travel Technology Platform Client

NexTravel is an all-in-one travel management platform that allows companies to book, manage, and track employee travel through an easy-to-use interface. The platforms allow travelers to create profiles, enter travel preferences and loyalty rewards programs, and search for flights, hotels and rental cars, while managers are given tools to create policies, prevent excessive spend, and track trips employees have booked. In general, companies turn to NexTravel to achieve more simplicity, control, and visibility in managing their travel spend.

As is common in corporate travel booking, companies using NexTravel often have employees occasionally that book travel directly from the item providers, such as the hotels and airlines. This behavior prevented NexTravel from fully meeting one of their clients’ top goals—to gain a holistic view into all their travel activity and travel spend. In order to meet this goal and improve the value of their platform, NexTravel engaged with Traxo in 2016.

Today, NexTravel forwards clients’ receipts from off-channel bookings to the Traxo platform, where Traxo parses the receipt details and submits them back to the NexTravel platform. This interaction provides NexTravel’s clients with all of their travel data, regardless of where bookings occur. As a result, NexTravel clients have a full picture of their travel program, as well as the ability to analyze travel data and improve travel management processes.



## About Level Research

Level Research, formerly PayStream Advisors, is a research and advisory firm that operates within the IT consulting company, Levvel. Level Research is focused on many areas of innovative technology, including business process automation, DevOps, emerging payment technologies, full-stack software development, mobile application development, cloud infrastructure, and content publishing automation. Level Research's team of experts provide targeted research content to address the changing technology and business process needs of competitive organizations across a range of verticals. In short, Level Research is dedicated to maximizing returns and minimizing risks associated with technology investment. Level Research's reports, white papers, webinars, and tools are available free of charge at [www.levvel.io](http://www.levvel.io)

### DISCLAIMER

All Research Reports produced by Level Research are a collection of Level Research's professional opinions and are based on Level Research's reasonable efforts to compile and analyze, in Level Research's sole professional opinion, the best sources reasonably available to Level Research at any given time. Any opinions reflect Level Research's judgment at the time and are subject to change. Anyone using this report assumes sole responsibility for the selection and / or use of any and all content, research, publications, materials, work product or other item contained herein. As such Level Research does not make any warranties, express or implied, with respect to the content of this Report, including, without limitation, those of merchantability or fitness for a particular purpose. Level Research shall not be liable under any circumstances or under any theory of law for any direct, indirect, special, consequential or incidental damages, including without limitation, damages for lost profits, business failure or loss, arising out of use of the content of the Report, whether or not Level Research has been advised of the possibility of such damages and shall not be liable for any damages incurred arising as a result of reliance upon the content or any claim attributable to errors, omissions or other inaccuracies in the content or interpretations thereof.

