GSCPA Southeastern Accounting Show

Cloud Computing

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Presented by J. Carlton Collins
www.CarltonCollins.com

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**ASA RESEARCH**

Cloud Computing

*What is Cloud Computing?...Why is it Better?...Why do we need it?*

Cloud Computing – The concept of cloud computing is not new; it dates back to the nineteen-seventies when timesharing systems allowed dumb computer terminals to connect to, and rent time from, remote mainframe systems. Since that time, this concept has been referred to by many names such as "Timesharing systems", "Remote Job Entry", "Network Computing", "Web-Based Solutions", "Software as a Service (SAAS)", and most recently – "Cloud Computing".
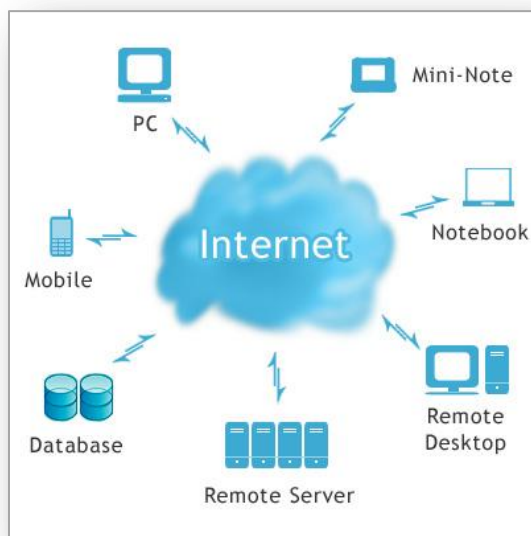
While there are many differing and complex definitions for cloud computing, in simple terms "cloud computing" means that your applications and data reside on a remote computer sever rather than your own desktop computer or mobile device. Thereafter, users connect to their applications and data via the internet, which is ubiquitously referred to as "the cloud". (The term "cloud" is derived from the cloud shape that many designers use to represent the internet when diagraming networks).

As an example, consider the process Concur Breeze employs related to the expense reporting function. Concur Breeze is a cloud-based solution that resides on the internet, and collects expense data from a wide variety of sources including smartphones, tablets, credit card transactions, banking transactions, and desktop computer systems.

This varied information converges in Concur Breeze where the data is brought together and neatly organized for inclusion in the traveler's expense report. The Concur Breeze main page is shown below.
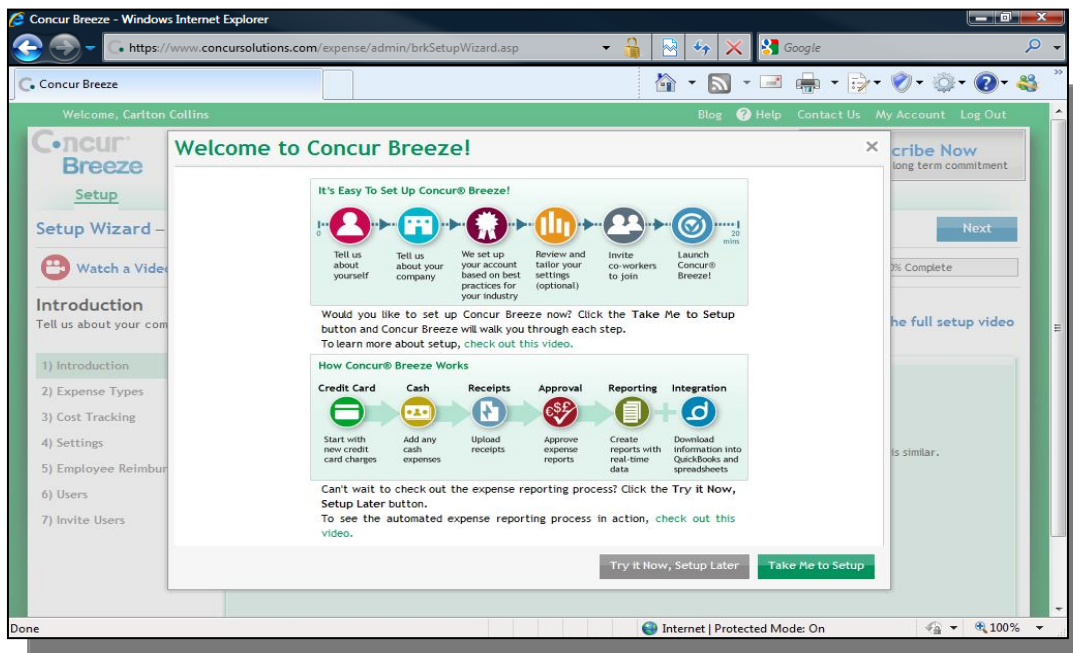
This cloud-based approach offers many advantages. By moving applications and data to the cloud, business travelers no longer need them loaded on their smartphones or tablets; instead, they access them via the cloud. This approach saves time and is easier because users need not expend time installing, updating and troubleshooting applications on their devices. Further, they need not expend time copying and/or synchronizing data among their various computers and devices.

Indications are that cloud-computing solutions are set to expand in the near future. For example, in January 2011, International Data Corporation (IDC) predicted, "*The worldwide cloud systems management software market will experience strong growth over the next several years, reaching $2.5 billion by 2015*".

SMARTPHONES & MOBILE DEVICES

BY J. CARLTON COLLINS, CPA

Smartphones & Mobile Devices – The evolution of mobile devices took a quantum leap forward in 2007 with the emergence of the Apple iPhone®, and again in 2010 with the emergence of the Apple iPad®. With these two devices, Apple launched the smartphone and tablet industries, and following suit, dozens of manufacturers have entered these markets with their own versions of these devices. Presented below is a brief discussion of each of these devices.

Smartphones – A smartphone is essentially a cellular phone and a small computer combined into a single portable hand-held mobile device, with touch screen controls. Although a smartphone's screen and keyboard is smaller than that of a desktop or laptop computer, the capabilities are effectively the same. For example, smartphones provide browser-based internet access, contact and day planner management, and strong e-mail capabilities. In addition to providing similar functionality as a computer system, these devices also offer the added benefits of portability and instant-on access.
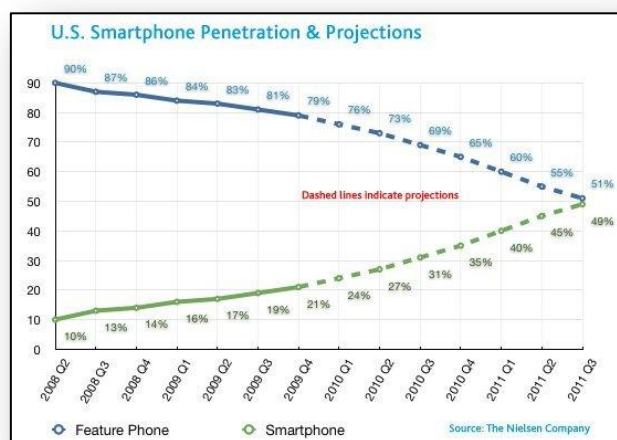
Many indicators suggest that smartphones will soon dominate the landscape. According to Small Business Computing, 65.8 million people in the United States owned smartphones as of January 2011, with sales quickly accelerating [1].

A 2011 study prepared by the Nielsen Company documents the recent rise in the sale of smartphones and a comparable decline in the sale of regular cellular phones [2]. As pictured to the right, Nielson predicts that these trends will continue and ultimately, smartphone sales are projected to exceed the sale of regular cellular phones by the end of 2011. A similar report prepared by Deloitte Consulting predicts sales of 375 million smartphones in 2011, just 15 million units shy of the projected number of personal computers sales in the same time frame. [3]
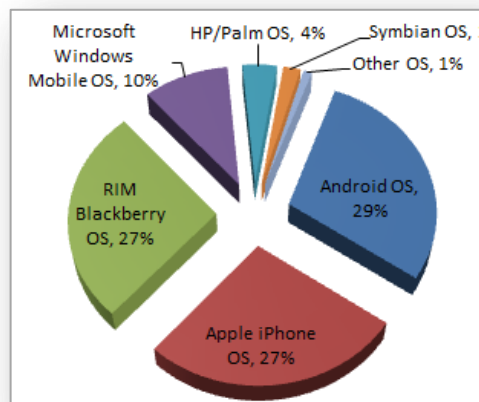
The smartphone operating systems deployed in the US are dominated by three primary solutions – Android (29%), Apple iPhone® (27%), and RIM BlackBerry® (27%), as pictured in the chart to the right. Previously BlackBerry® units led the market until the Apple iPhone® launch in January 2007, followed by the unveiling of the Android[tm] in November 2007. Since then both the Apple iPhone® and Android[tm] operating systems have gained market share, with Android[tm] taking the lead.

Smartphone technology continues to improve rapidly, even exponentially. Companies interested in updating their travel and expense management functions should be aware of the various smartphone options, and choose those solutions that best fit their budgets, preferences, and business operations.

Current Top Smartphones:

1. Apple iPhone – Apple OS, 3G, 32 GB. 3.2 megapixel camera
2. Motorola Droid – 3G, 15 GB, 5.0 megapixel camera
3. HTC Nexus One – Droid OS, 5.0 megapixel camera, 10 hours of talk time
4. BlackBerry Storm 2 - 3.2 megapixel camera
5. Palm Pre – Palm Pre OS, 3.0 megapixel camera, 5 hours of talk time
6. T-Mobile MyTouch - 3G, 3.2 megapixel camera
7. BlackBerry Bold Series – 3G, 3.2 megapixel camera
8. HTC Hero – 3G, 5.0 megapixel camera
9. Nokia N97 Mini – 2G & 3G, 5.0 megapixel camera
10. T Mobile - 3.0 megapixel camera, 315 minutes talk time

Top New Smartphones:

1. Motorola's Droid Bionic – 4G, 8.0 megapixel camera, HDMI Out
2. Motorola Atrix – 4G, includes an 11 inch notebook computer
3. LG Revolution – 4G, 5.0 megapixel camera

4. <u>HTC Thunderbolt</u> – 4G, basically a 4G version of the HTC EVO
5. <u>HTC EVO Shift</u> – 4G, slider keyboard
6. <u>HTC Inspire</u> – 4G, 8.0 megapixel camera
7. <u>Apple iPhone 5</u> - 4G (Not expected until 2012, Apple trying to hurry things up)

Comparison of Smartphones by features:

http://en.wikipedia.org/wiki/Comparison_of_smartphones

Smartphone Operating Systems:

Nokia's Symbian has long been the dominate smartphone operating system, but Goggle's Android has come on strong in the past two years to blow past Apple and overtake Symbian. Microsoft is barely on the radar.
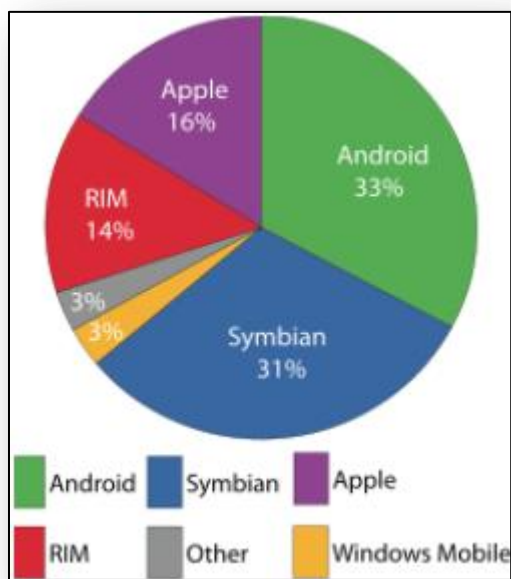
Tablets

Microsoft introduced the first tablet in 2001, designed (basically) as laptop computer with built-in touch screen technology. While the concept was well received, tablet technology fell short of expectations until January 2010 when Apple released the iPad®, which redefined the concept. The new Apple iPad® was thin and light, offered instant-on technology, and provided a quick, intuitive touch screen.

While Microsoft modeled their tablet after a laptop, Apple modeled theirs after the iPhone®, and as a result, the Apple iPad® tablet is primarily an oversized iPhone®, without the cellular calling capabilities. The popularity of these devices is rising dramatically. By January 2011, at least seventeen brands of tablets had been released. A partial listing of tablets from 17 suppliers, along with the estimated retail pricing is summarized in the table shown on the next page.

As of the date of this report, the Apple iPad® is the clear leader in the tablet market, and early indications are that the recently released iPad2® will help Apple maintain that lead. The competition is expected to intensify as a multitude of newly released tablets offer consumers a variety of price points, sizes and features. The Nielson Company predicts sales of

	Maker	Device	Price
1	Apple	iPad	$499 - $829
2	Archos	5 Models	$99 - $349
3	ASUS	EeePads	$400 - $1,000
4	Augen	GenTouch78	$150
5	Cisco	Cius	$999
6	Cruz	Cruz Tablet	$299
7	DELL	Streak	$549
8	Flat	FlatPad A10	$465
9	Haleron	X Droid	$249
10	HP	Slate 500	$799
11	ICD	ICD Vega	$249
12	Kno	The Kno	$599 -$899
13	LG	Optimus Pad	$150
14	MSI	WindPad 100	$500
15	Samsung	Galaxy Tab	$599
16	Toshiba	Folio 100	$500
17	Zenithink	ZT-180ePad	$299

50 million tablets in 2011 [2].

Tablets offer the same benefits as smartphones, but with larger view screens, larger keyboard entry and no monthly cellular phone charges (some tablet manufacturers do offer 3G and 4G internet access for a monthly fee, in lieu of Wi-Fi internet access). For these reasons, tablet use among business travelers is expected to gain momentum throughout 2011.

Tablet Operating Systems:

<u>Microsoft</u> - Windows CE & Windows Mobile
<u>Linux</u> - Slackware
<u>Google</u> - Android & Chrome OS
<u>Nokia</u> – MeeGo
<u>Apple</u> – MAC OS X

APPS FOR SMARTPHONE AND TABLETS

While smartphone and tablet devices are attracting enormous attention, it is the applications that operate on these smartphones and tablets that are driving the success of these mobile devices.

The vast quantity of available applications (often referred to as applets or apps) is a key factor fueling the success of smartphones and tablets. Software development kits (SDKs) offered by smartphone and tablet manufacturers have enabled third party developers to create more than one hundred thousand (100,000) new smartphone and tablet applications. These SDKs support a multitude of programming languages and development tools such as Java, Objective-C, C, C++, Cocoa, XML, Python, Ruby, CamelBones, and MacRuby to name a few.

The impressive collection of available smartphone and tablet applications covers a wide range of areas, including business travel. Consider the following examples: 1. Concur's mobile application enables business travelers to use their smartphone's camera to capture paperless receipt images and attach them to their expense reports for uploading. 2. This application also provides corporate workflow capabilities, which automatically escalate and routes expense reports to the appropriate supervisor for faster and efficient approvals. 3. Concur's mobile solution enables travelers to collect electronic hotel receipts and pay taxi and limousine fees using their smartphone to achieve cashless transactions which flow directly to the travelers' expense report. 4. Concur's TripIt application enables travelers to forward travel confirmations to plans@TripIt.com, and those details are automatically organized in the traveler's smartphone or tablet itinerary. 5. Other smartphone and tablet applications enable business travelers to quickly identify alternate flights in the event they are "bumped", suggest nearby restaurants, help to locate Wi-Fi access, keep apprised of the weather, locate the lowest priced gasoline in the area, and find local business establishments.

4G Wireless Communications

Third Generation (3G) telecommunications provides internet access at speeds up to 1/5th of a megabit per second, which is a satisfactory speed for many smartphone and tablet applications. However, Fourth Generation (4G) technology enables smartphones and tablets to connect wirelessly to the internet at speeds comparable to T1 landline connections. As a result, using 4G communications enables smartphones and tablets to access real-time information via the internet almost instantly. In theory, 4G enables communications at speeds up to 1000 megabits per second, but as a practical matter, most 4G implementations achieve speeds up to 40 megabits per second [35], due primarily to bandwidth limitations and restrictions imposed by providers. 4G technology represents a combination of several new wireless technologies as follows:

i. **Multiple In Multiple Out (MIMO)** – MIMO technology allows data to travel simultaneously via multiple channels, instead of a single channel. This technology is likened to automobiles traveling a multi-lane highway, instead of a single lane highway. In both cases, the multiple channels (or lanes) accommodate higher volume.

ii. **Frequency-Division Multiple Access Scheme** – This technology improves on MIMO by allowing multiple users to share a common channel by inserting guard intervals between blocks of user data. The effect is to squeeze more data through a single channel by utilizing the natural time gaps caused by multi-path propagation among data blocks [4].

iii. **Dynamic Channel Allocation** – This load-balancing technology more efficiently allocates channels to base stations and access points to avoid co-channel interference among nearby channels. The effect is to help reduce dropped calls, eliminate idle capacity, and improve overall transmission speeds. [5]

iv. **Channel-Dependent Scheduling** – 4G incorporates an improved scheduling algorithm in which threads, processes and data flows are balanced to accommodate multiplexing, which is the simultaneous transmission of multiple streams of data.

v. **WiMAX** – As wireless technology has evolved, developers have strived to identify the best protocols and radio frequencies to support distance wireless communications. In 2005, World Interoperability for Microwave Access (WiMAX) was approved by the Institute of Electrical and Electronics Engineers (IEEE) and in 2008, WiMAX began to emerge as a leading wireless protocol, enabling high speed transmissions of up to 25 miles. While WiMAX has been deployed on a multitude of frequencies, only three frequencies have been officially profiled by the WiMAX Forum as follows: 2.3 GHz, 2.5 GHz, and 3.5 GHz. [6] These

frequencies have been identified as being less susceptible to interference and are able to carry signals greater distances, with respectable reliability.

All together, these five technologies, combined with others not mentioned, comprise 4G technology. The emergence of 4G technology has helped to open the floodgates by making smartphone and tablet access to the internet a more satisfying experience due to increased speed, improved reception, reduced interference and fewer dropped calls.

Microsoft Windows Live Sky Drive

Microsoft offers a free solution called Windows Live SkyDrive, which enables everyone in your group to share Word and Excel (and other) documents. This solution also provides users with Word, Excel and PowerPoint applications (with limited functionality) so your group members can work in the same applications.

To use SkyDrive, sign up for a free Windows Live account at http://explore.live.com/. Under the **SkyDrive** menu, select **Get started** and follow the instructions for setting up a Windows Live account. Once you have completed the registration process, sign into your Windows Live Sky Drive account and click the **Office** menu option at the top of the screen to view your **SkyDrive** as follows:

Next create a folder and upload (or create) the group's Word and Excel files. Select the folder and click the **Share** menu option as shown to edit permissions and to send links to your group members, which will enable them to access the data files.
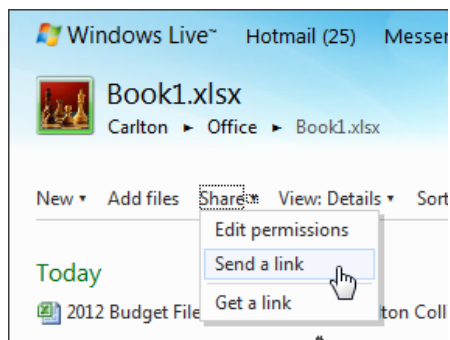
When sharing files in this manner, to better protect your data, check the checkbox labeled **Require recipients to sign in with Windows Live ID**. This action will require your group members to obtain their own Windows Live accounts and use their passwords in order to access the data files. Otherwise, anyone who receives the link will be able to access the data files.

Notes: The free version of Windows Live Sky Drive is limited to 25 GBs of storage, and individual files are limited to 50 MBs. For a fee, you can increase these capacities. Installing Microsoft's free Silverlight browser add-in will enable drag and drop functionality to and from your SkyDrive. The Windows Live SkyDrive solution was first introduced in August 2007, and is widely used.

Google Docs

Google offers a similar free solution called Google Docs; which is available at http://docs.google.com. The free version of Google Docs is limited to 1 GB of storage, and individual files are limited to 1 GB. For a fee, you can increase these capacities. Portions of the Google Docs solution was first introduced in August 2005 and this solution was acquired by Google in 2006. The Google Docs solution is also widely used, and an example of the Google Docs main page is shown.

Microsoft Windows 8

Windows 8 is rumored to be a cloud based solution, although no one yet knows exactly what that means. I predict that Windows 8 will be offered as both a premise and cloud solution – your choice – just like Office 2010 and Windows Live demonstrated above. Windows 8 will also be a touch screen solution. Here is a demo of Windows 8: And an amateur video. It also rumored to be offered in a 128 bit version.

EXAMPLE CLOUD SOLUTIONS - TRAVEL INDUSTRY

As explained, these new technologies have given way to new solutions, and as just one small example, I offer the following travel and expense management solutions.

Presented below is a list of specific technologies, tools, solutions, and methods you should consider implementing, followed by a brief explanation and a list of the benefits you can expect to derive.
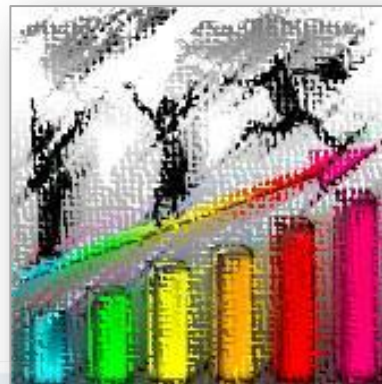
TRIPIT

TripIt is a cloud-based and mobile app solution and the market leader in mobile trip management owned by Concur. With more than 15 million users, TripIt primarily organizes travel plans into a single well-organized itinerary which can be accessed online, or through any mobile device such as a smartphone, tablet or laptop computer. To use TripIt, travelers simply forward their hotel, airline, or rental car reservations to the TripIt e-mail address (plans@TripIt.com), or fax them to the TripIt fax number, and TripIt technology identifies the confirmation format and uses logical recognition to reorganize the travel plans into a single, easy to read itinerary. The TripIt solution adds maps and directions automatically, provides itinerary access to family and friends upon your approval, and sends e-mail and text message alerts in the event of flight delays or cancellations. Presented below are some of the benefits provided by the TripIt solution.

1. **Organized Itineraries** – When embarking on a business trip, it is essential for travelers to have their travel plans with them, including reservations, confirmation numbers, destination addresses, etc. It can take a significant amount of time to locate, assemble and pack the necessary information prior to a trip. Concur simplifies this task using a technology called the "*Itinerator*" to automatically extract and organize reservation confirmations received in text, HTML and PDFs formats. Users simply forward reservation confirmations to plans@TripIt.com and TripIt does the rest. Concur's built-in conversion tools are able to recognize and convert more than 3,500 types of reservations related to airline travel, hotel lodging, car rentals, restaurants, theater tickets, and even cruises.

2. **Gmail Integration** – TripIt offers Gmail users an additional convenience. With the traveler's permission, TripIt will automatically check the traveler's Gmail inbox several times each day, and import the travel reservations it recognizes.

3. **Up-to-Date Itineraries Delivered to Smartphones** – Printed itineraries are helpful, but the process of producing, packing and digging out printed itineraries has drawbacks. In contrast, itineraries maintained in TripIt's cloud-based solution are continuously synchronized to the business traveler's smartphone or tablet. As travel plans change or grow, itineraries are updated and delivered to the traveler's smartphone or tablet. This update occurs even when changes are made by others, such as an administrative assistant. This solution leads to greater convenience in many ways, as this report explains.

4. **Bar Coded Check In** – Today many airlines allow business travelers to check in to their flights using their smartphone instead of a printed boarding pass. TripIt supports this technology by e-mailing a bar-coded boarding pass to the traveler's smartphone, which the traveler then wands (or waves) over scanners located at security and boarding checkpoints. This process eliminates the need for a paper-based boarding pass, and speeds up the

security and boarding process.

5. **Arrival, Departure & Gate Information** – TripIt Pro provides travelers with important flight details about each leg of their flight, including arrival and departure times, gate locations, and airport terminal maps. TripIt Pro sends a notification to the traveler if any aspect of the flight changes, and those notifications can be set to automatically notify others as well.

6. **Paperless Itineraries** – Paper-based itineraries not only waste paper, toner and printer costs, it also takes time to load paper, print itineraries, and pack them for travel. Further, paper-based itineraries can be less convenient to access, or may be inaccessible. For example, a business traveler using a paper-based itinerary may forget, or choose not to carry their itinerary with them to a dinner meeting. In this case, the traveler may be caught empty handed in the event that the itinerary is then needed. TripIt effectively reduces or eliminates the need to carry printed itineraries and ensures that itineraries are conveniently accessible via the traveler's smartphone. Of course, TripIt also allows users to print out a paper-based copy of their travel itinerary, which is probably a good backup plan.

7. **Interactive Itinerary** – As a business trip transpires, the traveler may plan additional activities such as luncheons, dinners, or entertainment. In this situation, TripIt allows business travelers to add additional activities to their itinerary and as new events are added, TripIt automatically generates new driving directions and local maps.

8. **Sharing Itineraries** – A need often exists for travelers to share their itineraries with co-workers, colleagues, families and friends. TripIt accommodates this need by enabling travelers to share their itineraries either online, or if preferred, itineraries can be e-mailed or saved as PDF documents.

9. **Calendar Integration** – Using the universal iCalander format, TripIt keeps your calendar in synch by sending a live feed of your itinerary information directly to Outlook, Google, and Lotus Notes calendars, as well as others.

10. **Confirmation Numbers** – Business travelers occasionally need to provide their confirmation numbers to airlines, hotels or car rental agencies to help locate reservations that may have been lost or improperly booked under a different or misspelled name. In this event, TripIt conveniently organizes and displays all confirmation numbers on the smartphone or tablet for easy access, which can be particularly handy for travelers who absent mindedly left their confirmation numbers in the rental car, or back at the office.

11. **Contracted Rates** – Many business travelers report they have been victims of overcharging. Unfortunately, in many cases those overcharges were detected far too late to easily request a correction. For example, many travelers reported that the overcharges were detected when the traveler prepared the

expense report, or when the accounting department double-checked the submitted expenses. The best time to review and catch overcharging errors is when the vendor hands you your invoice. The TripIt itinerary organizes all contracted airfares, hotel rates, and car rental fees as reported in the reservation confirmation, making it convenient for the business traveler to confirm that the rates actually charged agree to the rates quoted. This solution makes it easier for travelers to catch discrepancies in time to easily take corrective action.

12. **Local Maps and Driving Directions** – When preparing for a business trip, it can take a significant amount of time to use a mapping utility to create and print local maps and driving directions. TripIt eliminates this time-consuming task by automatically adding local maps and driving directions to itineraries, based on the travelers destinations. Using TripIt's smartphone solution, directions are adjusted automatically in the event the traveler strays off course, encounters a detour, or chooses a new destination. Users can also add or reorder destinations, and Concur automatically updates the driving directions. For example, printed itineraries do not integrate with a GPS system to provide turn-by-turn driving directions.


13. **Google Maps** – TripIt integrates with Google Maps to provide local maps and driving directions. While any traveler can access Google Maps directly from their computer or smartphone, TripIt improves on this solution by passing itinerary information, destination data, and real-time GPS information directly to Google. In return, Google automatically returns local maps and driving directions, eliminating the time required for the traveler to launch a browser, navigate to Google Maps, enter destinations, and save the results. In essence, TripIt enables business travelers to access local maps and driving directions faster and more easily.

14. **"TripIt To Me" Commands** – TripIt allows users to email commands such as "get flight tomorrow" or "get trip today" to plans@TripIt.com, to which TripIt automatically responds by replying to the e-mail with the requested information. This feature can be helpful for travelers who only have access to email, but not a web browser. This feature may also be useful for travelers who want to receive a quick e-mail for forwarding to others.

15. **Airport Services** – TripIt provides travelers with information about the businesses and services offered near arrival or departure gates, or in your concourse or terminal, for more than 100 major airports located in the U.S. and Canada. This information could be useful to the traveler who needs to purchase cough medicine, batteries, or a new tie in a hurry between flights.

16. **Closeness Alerts** – TripIt compares your itineraries with others and sends you Closeness Alerts in the event that you will be close to another colleague, friend or connection while on the road. For example, if both you and your New York based friend, colleague or customer plan to attend the same conference in Las Vegas, TripIt will alert you in time to make plans to get together with them.

17. **Shared Trip Alerts** – TripIt will alert you whenever one of your TripIt connections, such as colleague or customer, makes changes to a shared trip that you are planning to take together. This feature may help ensure that all parties arrive and depart at the same time, so no one is left waiting on others. This information may also help travelers share rides and dinner reservations to reduce costs and maximize productivity.

18. **Gate Change Alerts** – Airlines frequently make last minute gate changes for a variety of reasons, and often these gate changes occur after the traveler has already checked in, but before they reach their departure gate. In this case, distracted travelers may not realize that a gate change has occurred until it is too late. Even if the traveler discovers their error and rushes to the correct gate, airlines reassign unused airline seats 15 minutes prior to departure, which means the traveler may lose their seat assignment and miss the flight, even with a valid ticket in hand.

While airlines typically make every effort to accommodate travelers in this situation, the rules are often strictly enforced. If the plane is full, a traveler arriving late to the gate may be out of luck. TripIt Pro reports airline departure and arrival gates automatically based on the traveler's flight information and if the gate changes, TripIt Pro automatically alerts users of that change via text message to their smartphone.
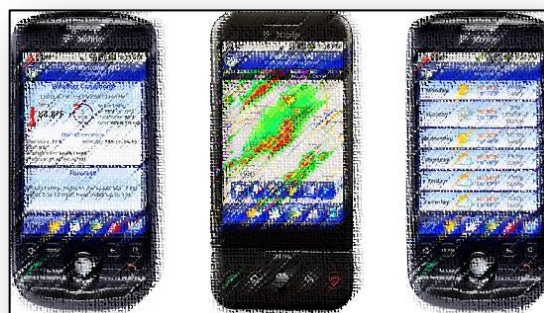
19. **Weather Guides** – When packing for a business trip, weather reports are useful to

ensure the traveler packs the right clothes and accessories, such as a heavy coat or umbrella. To accommodate this need, TripIt automatically includes local weather forecasts in the itinerary, and those forecasts are updated continuously as weather conditions change. While there are many independent sources for weather information, TripIt automatically reports weather conditions based on the destinations reflected in the traveler's itinerary, thus eliminating the need to launch a browser, navigate to a weather site, and input destination data.

20. **Weather Delay Alerts** - Deteriorating weather in destination cities can affect travel plans as airlines delay or cancel flights. As a result, meetings may be cancelled or rescheduled. When severe weather delays your flight status, TripIt Pro notifies the traveler of changing weather conditions and flight statuses via a smartphone text message, allowing the traveler to quickly make alternative plans, if necessary. In many cases, acting quickly may help travelers secure the last remaining seat on another flight, or a hotel reservation. Many travelers departing form localities with good weather do not always monitor the weather conditions in destination cities. In this situation, early notification of impending weather may provide the traveler the opportunity to cancel the trip before boarding.

21. **Flight Status Change Alerts** – The status of an airline flight can change for a variety of reasons, and when this happens, seasoned business travelers know it is important to act quickly if travel changes are needed. With this in mind, as the status of a flight changes, TripIt pro alerts the traveler immediately via Short Message Service (SMS) text message or e-mailed notification.

22. **Inner Circle Notifications** - TripIt Pro can also send copies of flight status alerts, such as notifications of arrivals or delays, to the traveler's "inner circle", which may consist of co-workers, colleagues, family, friends, and limousine services. In the event of flight delays or cancellations, these notifications can save others from making an unnecessary trip or enduring a longer waiting period when picking up the traveler. In some cases, business colleagues merely seek assurances that the traveler has arrived in time to attend an important meeting. In other cases, worrisome loved ones are comforted by the travelers' safe arrival. This information could be useful to fellow travelers planning to meet up upon arrival, or even for a spouse planning dinner for the weary traveler.

23. **Zoomable Flight Tracking Maps** – TripIt provides users with zoomable live flight tracker maps, covering more than 5,000 airports and 1,400 airlines [8]. Airlines do not always provide updated estimated times of arrival (ETA) on a continuous basis, so the published ETA may not be accurate. Concur's flight tracking functionality provides users with a visual window to the flight's actual progress, to help them better anticipate their arrival time, or the arrival time of another traveler.

24. Online Check-In – Upon arriving at the airport, business travelers are sometimes confronted with long lines at the check-in kiosks or counters. TripIt addresses this situation by providing a link for checking-in online, making it easier to by-pass check-in kiosks and counters and proceed directly to the baggage drop-off counter or flight. Checking-in online might also improve the chance of receiving a first class seat upgrade. Airlines typically award unused first class seats to passengers based on their status, but in the event of a tie, the upgrade is awarded to the traveler who checked-in earlier. Using TripIt's online check-in link helps a traveler complete the check-in process long before arriving at the airport.

25. Alternate Flights – There are many reasons why a business traveler might change their flight at the last minute. For example, a customer may request that the traveler extend their meeting, traffic conditions may delay the traveler from arriving at the airport, or delayed or cancelled flights may call for alternatives. In all of these cases, TripIt helps the traveler change flights by providing a list of alternative flights. TripIt Pro displays the additional fees involved and provides buttons to make it easier to switch flights directly from one's smartphone.

26. Airline Seating – Seasoned travelers prefer to select seats using a visual seating maps that identifies aisle, bulkhead and emergency row seating. This is because many know emergency row seats provide more leg room, but only in those seats located in the back row of the emergency seating recline. Concur Premier provides visual flight seating maps and makes seat selection easier by providing a link for checking and changing seating assignments, and monitoring upgrade requests.
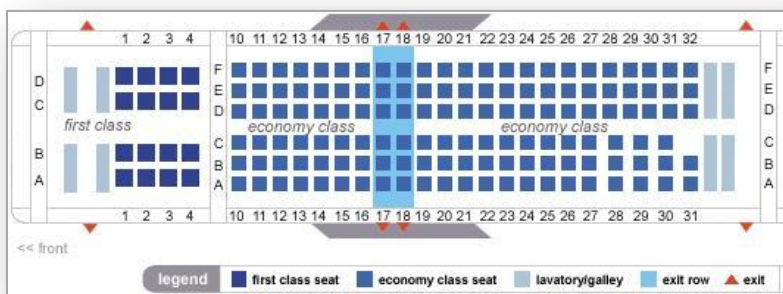
27. Efficient Driving Directions – Many seasoned travelers may have their own driving directions to places and customers they frequently visit, but those directions may not

represent the most efficient route. TripIt's computer generated driving directions are able to incorporate many factors such as the average speed for each route and construction detours. In many cases, computer generated driving instructions are different from those used by travelers, and often the computer's directions yield faster travel times and fuel savings.

28. **Zoomable, Scrollable Local Maps** – A business traveler's smartphone or GPS device provides local maps, and pinpoints the traveler's exact location on that map. These maps can be zoomed in and out to achieve the desired level of view. This feature eliminates the need to purchase and rely on paper-based maps, which have many flaws. As examples, it is sometimes difficult for a traveler to pinpoint their location on a paper map, particularly when lost. Even when a traveler knows their position, locating that exact position on a map while driving is dangerous and pulling over to consult the map wastes time. By contrast, GPS based maps pinpoint the traveler's position and enable the traveler to reference the map at a glance.   Not only are locally purchased maps unnecessary, the process of hunting down a map wastes time. Folding maps often do not provide the detail street level views, additionally a locally purchased book of detailed maps can be difficult and time-consuming to navigate, particularly when following maps from one page to the next.

29. **Airline Fare Monitoring** – TripIt Pro automatically monitors pricing for a wide range of travel services, and alerts users when refunds or credits are earned as airline prices drop. For example, many airlines offer refunds in the event that the price drops below the amount paid by the traveler. When eligible, TripIt automatically (or with one click) applies for the appropriate airline voucher or refund. Without this functionality, travelers may be unaware that they qualify for a voucher or refund.

30. **LinkedIn Integration** – When traveling for business, it is sometimes helpful to combine trips, especially when there is an opportunity to hold multiple meetings in the same locality. To help travelers identify such opportunities, TripIt integrates with LinkedIn to allow users to identify LinkedIn connections (people in your LinkedIn network) residing in their travel destination. This information may help travelers identify and schedule additional meetings, or obtain local trip planning advice.

31. Facebook Integration – With permission, TripIt will post travel plans to the traveler's Facebook News Feed. While this level of information sharing may overstep privacy boundaries for some, others may view this tool as an opportunity to gain local feedback and connect with others to obtain travel advice from social network friends regarding where to eat, what to see, and what to do. This information may also help the traveler plan meetings with friends in destination cities. As a default, TripIt does not share data without the traveler's express permission, therefore to use this functionality, the traveler must turn this feature on.

32. Frequent Flyer & Loyalty Programs – Frequent flyer award points can accumulate into valuable sums and to ensure that the traveler receives the proper amount of points, TripIt Pro monitors mileage and frequent flyer and loyalty programs to help ensure that points earned are properly received.

33. More Social Media Integration – Using TripIt's Activity Feeds, travelers can publish their traveler plans on other social media web sites such as MyYahoo and iGoogle to keep friends, connections or colleagues apprised when you leave for, or return from a trip.

34. Organized Photographs – TripIt enables the business traveler to take photographs and organizes them as part of the traveler's itinerary. This function has many useful business purposes. For example, the business traveler might take photographs of people they have met to help them learn and recall their names at a later date. Photographs might also be used to document a business facility, inventory item, warehouse organization, or vehicle damage in the event of a driving accident. The photographs taken might later be useful for recalling trip details, sharing with co-workers at the home office, or inclusion in a Word document or PowerPoint presentation. Because photographs are uploaded and organized automatically, TripIt could help reduce or eliminate the amount of time needed to locate trip-related photographs at a later date.

35. **Permanent Documentation** – Upon concluding a trip, most business travelers typically throw away their paper-based itineraries. Other business travelers save their paper-based itineraries only to wrestle with the need to file them in a file drawer and later move them to a filing cabinet, archive box, and ultimately, a paper shredder. More manual effort is required in the event that users need to refer to them. In other cases, travelers might take the time and effort to scan their paper-based itineraries after the fact, as an electronic archive. TripIt eliminates the need to perform all of these tasks by providing paperless itineraries from start to finish, and the resulting itineraries are easy to permanently retain.

36. **Paperless Solution** – The concept of the paperless office was first proposed in a BusinessWeek article published in 1975 [9], and this concept has become a widespread

reality for many companies in the past decade. The emergence of scanner technology, larger, low cost hard drives and indexed-based search engines helped pave the way for affordable and practical paperless systems to emerge. Today millions of companies create and maintain electronic copies of documents in lieu of paper-based documents. There are many benefits to a paperless work environment including a reduction of paper, printing and toner costs, a reduction of delivery costs, a reduction in file cabinets and storage rooms, reduced time spent filing and retrieving paper documents, quicker access to documents, remote access to documents, improved back up, and improved security, to name a few.

The prevalence of the paperless work environment invites continued expansion of paperless methods, and the solutions described in this report such as TripIt and Concur Breeze capitalize on this foundation by providing solutions for capturing paperless receipts, managing paperless itineraries, submitting paperless expense reports, and managing a paperless workflow.

The result is a reduction in paper costs, storage costs, filing time, delivery time, superior accessibility to data, better back

up, and a foundation for automating many of the processes related to travel and expense management.

MOBILE DEVICE SOLUTIONS

SMARTPHONES AND TABLETS

As mentioned above, smartphones and tablets are new mobile hand-held devices delivering the power of a computer with touch screen control. The use of these devices can simplify and improve the travel and expense management processes in many ways. A list of some of the benefits provided by smartphone and tablet technology is presented below.

37. **Make Idle Time More Productive** - The nature of business travel dictates that a certain amount of idle time is wasted waiting for taxis, limousines, shuttle buses, airplanes and business colleagues to arrive. Smartphones and tablets help business travelers convert this unproductive idle time into more productive administrative time. For example, a business traveler could use Concur's mobile app to record their rental car receipt while traveling on the rental car bus back to the airport, enter their luncheon receipt while wrapping up a luncheon conversation, or apply finishing touches to their expense report while waiting on an airline to begin the boarding process.

38. **GPS & Mapping Technologies** – First established in 1973, and fully operational in 1994, the Global Positioning System (GPS) enables smartphones, tablets and other devices to calculate an exact position on the Earth within approximately 1 to 20 meters, according to various manufacturers of GPS devices. This technology, combined with mapping technology, is widely used in smartphones and tablets to provide business travelers with local maps, turn-by-turn driving directions, listings of nearby restaurants, hotels and other business services, and even the location of the cheapest available gasoline.

GPS and mapping solutions are ideally suited to help business travelers navigate their way through unfamiliar or less-familiar territories, to locate their destinations and business services, avoid unproductive time and expense associated with getting lost, and avoid

potential problems that might arise from arriving late to (or missing) an important business meeting.


39. **Paperless Driving Directions** - While using a desktop computer to obtain driving directions works well, it also takes additional time to generate and print those directions and results in paper, toner and printer maintenance costs. Further, printed driving directions do not accommodate destination changes during mid-travel. The use of a GPS device eliminates the need to generate, print and carry paper-based driving directions, and can better accommodate a traveler when destinations change.

40. **Turn-by-Turn Directions** – Smartphones and tablets typically include free apps that provide turn-by-turn driving directions to help travelers avoid getting lost. Most travelers report they occasionally get lost and based on anecdotes; the act of getting lost typically costs the business traveler between 10 to 30 minutes. Even the simple act of making a wrong turn can cost 5 minutes or more by the time one turns around and waits on traffic lights.

Not only does the act of getting lost waste time, it also wastes gasoline, about $3.00 per episode. *(Assumptions: 24 mpg; traveling at 60 mph; gasoline costs $3.50 per gallon; each incident of getting lost wastes 20.5 minutes).*

Of course, there is no solid method for estimating the cost to a company in the event that a business traveler is late to, or misses an important business meeting.

41. **Visual Driving Directions Are Safer** – Not only do smartphone and tablet apps provide turn-by-turn driving directions, they also provide a visual map which displays the traveler's real time animated position on that map.
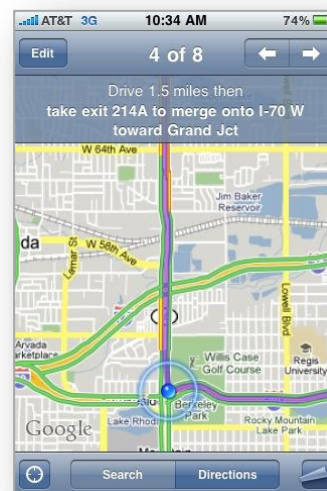
This visual confirmation assures the traveler they are on the correct driving path, and allows them to view cross roads and better anticipate upcoming turns. By contrast, drivers who struggle to see the fine print or to find their locations on printed maps are at greater risk of potentially having an accident.

42. **Voice Based Driving Directions Even Safer** – Taking driving directions one-step further, most smartphone and tablet apps provide GPS based turn-by-turn directions using voice instructions. This enables the traveler to pay full attention to their driving instead of referring to a map or directions, be them printed or electronic. When travelers relay on printed maps or driving directions, they must glance away from the road periodically to refer to them, which increases the risk of an accident. For safety, some drivers pull over and park safely before consulting a map or printed driving directions, which is smart, but can cost valuable time.

43. **Car Locator** – Some airport parking lots are large, and can be difficult to navigate, particularly after a long trip. For this situation, most smartphone and tablets support applications that allow travelers to record the GPS coordinates of where they parked, to make it easier to find the parking space after returning from a long trip.

44. **Parking Meter Timer** - Many smartphone and tablets support timers that will help you remember when the parking meter is about to expire, potentially saving travelers from receiving costly parking tickets.

45. **Lower Insurance Rates** - Some insurance companies provide reduced the car insurance rates [10] for drivers of cars with installed GPS tracking system. This may provide an incentive for companies to have GPS tracking systems installed in employer provided vehicles. Insurance companies extend lower rates because the installed GPS system makes it easier for police to recover a vehicle in the event it is stolen, and the GPS system enables the insurance company to monitor the driver's driving habits. [11] (However, this strategy might work against companies with poor drivers.)

46. **Traffic Adjusted Driving Directions** - Some GPS systems are designed to monitor traffic conditions and will alert drivers of impending traffic congestion, accidents, and detours, and suggest alternative routes for avoiding those obstacles. As of the date of this report, this functionality was primarily limited to GPS devices from Garmin and Tom Tom; however, many expect this functionality to become available to smartphone and tablet based solutions.

47. **Speed Check Notifications** – Smartphone and tablet apps are available that claim to warn travelers of approaching manned and unmanned radar-based speed check stations. Of course traveler's should always drive within the speed limit, but it can be helpful to receive such notifications nonetheless, as the process of being pulled over for speeding can waste valuable time and lead to expensive fines and higher insurance rates. In habitual cases, business travelers might even lose their driver's license, inhibiting their ability to properly perform their duties.

48. EXPENSE MANAGEMENT SOLUTION

CONCUR BREEZE AND CONCUR'S MOBILE SOLUTIONS

Concur Breeze is an expense reporting solution designed specifically to allow small businesses to leverage the technologies described herein to simplify the expense reporting process. Concur Breeze is relatively low-cost, quick to setup, easy to use, helps small companies save time, reduce errors and manage cash flow. Concur Breeze simplifies the expense reporting process in many ways, such as populating expense reports automatically with credit card transactions to seamlessly pass expense information to back-office accounting systems.

Concur's mobile solution extends the functionality of Concur Breeze by enabling travelers to perform many functions from the convenience of their mobile smartphones and tablets such as manage invoices, preparing expense reports, requesting approvals, and monitoring check requests. This solution makes business travelers more productive when traveling because they are able to convert idle time into more productive time. The productivity gains made on the road benefit the business traveler by reducing or eliminating the need to perform administrative tasks at their desks, and studies tend to support this premise. According to a report prepared by the Aberdeen Group in March 2009, companies were able to increase their productivity by 40% by implementing Concur's mobile invoice and expense mobile solutions. [12] The same Aberdeen study also credited mobile solutions with increasing traveler efficiency on the road, reducing invoice cycle times, and lowering the risk of late payment fees.

A partial listing of the benefits provide by Concur Breeze and Concur's mobile follow.

49. **Capturing Cash Expenses** – Concur Breeze provides a convenient screen for capturing cash expenses such as tips paid to bellmen, car hops, waiters, and cash expended at toll booths and parking meters. Using Concur Breeze's "Add an expense" feature, travelers can record the amount, type, currency, location, vendor, and add comments and photo receipts, as discussed below.

50. **Photo Receipts** – Business travelers can use their smartphone or tablet cameras to take a picture of receipts, and those receipts can be associated with the corresponding expense in the expense report. Later, when the expense report is submitted, the receipt is automatically uploaded with the expense report, allowing managers and reviewers to view

the supporting documentation with the click of a hyperlink. Built-in technology enhances the image for better clarity.
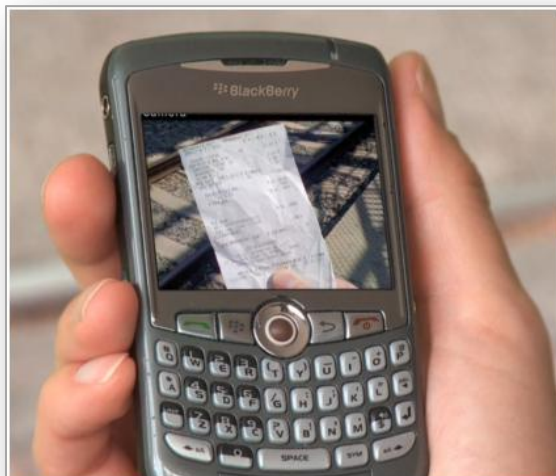
Some managers report that because the receipt image is associated with the proper line item, Concur expense reports are often easier to review because the need to search for and match the supporting receipt for each expense line item is eliminated.

51. **Paperless Receipts** – In addition to photo receipts, Concur Breeze supports the attachment of scanned-in receipt images to expense report line items. Users can scan receipts using their desktop or hand-held scanners. This process reduces or eliminates the need for maintaining and migrating paper-based documents to file drawers, filing cabinets, archive boxes and ultimately, paper shredders.

52. **Importing Credit Card Charges** – Concur Breeze will automatically import credit card charges from the traveler's credit card company, and present them for easy inclusion when preparing expense reports. To use this feature, from the Concur Breeze home page, the user clicks the "View Card Charges" button, which displays a list of each credit card setup in Concur. Selecting a credit card displays a list of credit card transactions which can be added to an expense report by placing a checkmark in the checkbox next to the transaction and clicking the "Add Selected" button. This action will launch the expense report window where the user assigns the expense type code (account number) to each line item, and can edit or add additional information such as department or comments. An additional option allows the traveler to designate the line item as a personal, non-reimbursed expense. If necessary, new expense types (account numbers) can be added on the fly.

53. **Importing Banking Transactions** – Similar to the importing of credit card charges as described above, Concur Breeze can also import bank transactions, making it faster, easier and more accurate to add check transactions to expense reports.

54. **Job Costing** – Concur Breeze enables travelers to record expenses not only by customer, but also by job, location, division, program, campaign, etc. This capability is managed in the Concur Breeze setup screen as shown below.

Sequence	Field Name ▲	User Input	Required	Include in the QuickBooks Export?
⬇	Client:Service	Select from a list	✓	✓
⬆	Customer:Job	Type free-form text	✓	☐

55. **Electronic Submission of Expense Reports** – Concur Breeze reduces or eliminates the need for maintaining paper-based documents, and enables expense reports with supporting documentation to be easily forwarded to managers and administrative personnel for approval and processing. This also enables expense report monitoring and verifications by distant reviewers.

56. **Submitting Expense Reports Via E-mail** – Concur Breeze users have several options for submitting expense reports. From the desktop computer, the process is as follows. To submit a completed expense report, the user clicks the Submit button located at the top of the Concur expense report. Before submission, as a final review, Concur displays a list of all of the expense report line items that require an attached copy of the receipt (based upon company policy). This screen provides an **Attach Receipt Image** button for selecting the receipt images for inclusion with the expense report. Clicking the **Submit Report** button completes the process. This electronic approach eliminates the need to mail, courier, or hand deliver expense reports, and the user's e-mail account keeps an electronic copy of submitted expense reports in the Sent box as a permanent record, thus eliminating the need to make and file paper copies.

57. **Submitting Expense Reports Via Fax** – Traveling employees without access to a scanner may have no practical way to convert paper receipts into electronic receipts for attaching to expense reports. Concur Breeze solves this problem by providing a unique solution using a fax machine. When submitting expense reports, the final review phase allows users to print a fax cover letter with special bar-coding information as shown below. This allows the employee to fax the cover letter to Concur along with the paper-based receipts (taped on blank paper). As Concur receives the fax, it reads and interprets the bar coding information on the fax cover letter, scans images of the attached receipts, enhances them for clarity, and automatically attaches those images to the expense report for submission.

FAX COVER PAGE
(see instructions below)
Fax this page and your receipts to:
866-428-9026

Report Summary

Report Name :	Expense Report 03/28/2011
Employee Name :	Collins, James
Report ID :	E7D68F8CE05148E0BC61
Employee ID :	carlton
Company ID :	C1AA9
Report Total :	$643.50
Amount Due Employee :	$643.50
Amount Due Company Card :	$0.00

Receipts to Fax

☐ 03/24/2011; Dinner; $52.26;
☐ 03/27/2011; Gas; $36.45;

58. **Workflow Status –** Concur Breeze displays a list of all submitted and outstanding expense reports along with their status, be they pending, approved or paid. This feature enables employees to monitor expense report statuses using self-help functionality, instead of having to call to inquire of statuses.

59. **Manager Review and Approval –** As subordinates submit their expense reports, Concur Breeze notifies the appropriate manager and enables them to use their smartphone, tablet laptop, or desktop computer to review reports including attached receipts, and approve or reject expense reports. The result is a reduction in the reimbursement cycle time by up to 66%. [13]
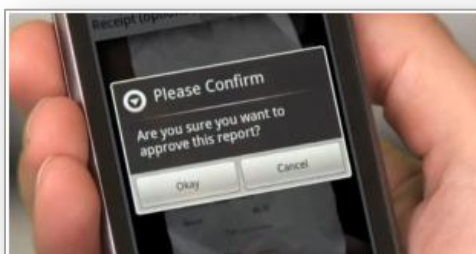
60. **Eliminate Expense Report Preparation at the Office** - Many business travelers report that using Concur Breeze, enables them to prepare, complete and submit expense reports as they travel, thereby eliminating the two to three hour expense report preparation process

they previously undertook upon returning to the office. Many travelers elaborated on this point, stating that the process of preparing expense reports back at the office as a conclusion to a business trip was often inefficient. This is attributed to receipts that were sometimes difficult to locate, cash expenditures were sometimes difficult to recall, details related to the business purpose of some expenses were difficult to recall, and the preparation process sometimes involved up to three hours of effort. By enabling travelers to complete the expense report preparation process on the road, with receipts at hand and details fresh, Concur Breeze saves travelers approximately two to three hours each trip.

61. **Pre-Trip Authorizations** – The term "pre-trip authorization" refers to a formal process of submitting requests for business trips and gaining approval from management prior to taking the trip. Many companies report that before they implemented a formal authorization process, many business trips were determined to have been needlessly taken. By organizing the request and approval process, managers can more easily review planned trips and strive to combine, postpone, or eliminate those trips that fall under the categories "internal, non-client-facing, non-revenue-generating". As an example of the potential benefit, in 2009, Deloitte reported that the implementation of a formal pre-trip authorization process resulted in a 71% decline in discretionary travel, compared to the same period a year earlier.

62. **E-Receipts** – E-receipts are a fast growing trend in the travel industry, and Concur Breeze embraces this trend by enabling business travelers to collect e-receipts rather than paper-based receipts from participating vendors. For example, hotels such as La Quinta Inn & Suites can provide their guests with detailed folio data and e-receipts, and in turn, these folios and e-receipts are automatically reflected in the Concur Breeze expense report. There are many benefits to e-receipts as follows:

a. *Because the process is electronic, the business traveler need not incur time entering the expense information.*

b. *Because the folio is detailed, pertinent detailed information is automatically broken out, such as taxes and per night room rates.*

c. *Because the folio is detailed, business travelers are better able to comply with the travel policies, such as reporting room rates per night, and breaking out taxes separately.*

d. *Since paper is eliminated, the hotel reduces paper, toner and printer costs. Ultimately, these savings could be passed on to the traveler.*

e. Since paper is eliminated, check out can be faster as there is no need to wait on receipts to be printed, perforations to be removed, receipts to be folded, and attachments to be stapled.

f. Since paper is eliminated, the business traveler has less information to manage.

g. Since paper is eliminated, the environment is better protected.

Currently, not all companies offer e-receipts, but this technology is gaining momentum. For example, in January, 2010 the European Commission announced Value Added Tax (VAT) calculation changes, which enable businesses to implement electronic invoicing solutions. In that announcement, the commission predicted that this measure would produce savings up to 18 billion euros across the European Union [15].

63. Daily Grid Expense Entry – While Concur offers several screens and methods for capturing and recording expenses, Concur also recognizes that some travelers prefer to use a grid entry view for entering their expenses. As shown below, the Concur grid entry screen enables users to enter line items by day, including mileage and out-of-pocket cash expenditures. An additional tab helps users view and manage reimbursement limits according to policy, and a preferences tab allows the user to set defaults to make the preparation of future expense reports easier.

64. Built-in Expense Accounts - Concur presents a dropdown listing of common expense accounts (or expense codes) next to each imported credit card transaction making it easy for users to assign transactions to the proper and valid accounts. This feature speeds up the expense report preparation process and promotes greater accuracy, and also makes it possible for the expense report to be electronically transferred to the accounting system.

65. Allocations – When business travelers service two or more customers during a single trip, the resulting travel expenses need to be allocated to each customer serviced in order to produce accurate financial reports. As shown in the screen below, Concur Breeze provides the business traveler with the ability to allocate expenses to multiple clients or customers, and even to multiple projects or jobs, using the percentage allocation method.

Expenses can be allocated in bulk, or on a line item basis to achieve the desired allocation. For example, a traveler may split their airfare evenly between two customer accounts, but because the traveler spent one day with the first customer and three days with the other, the hotel bill may be split using a 25% / 75% allocation.

66. Employee Advances – Some companies provide employees with cash advances to help cover their out-of-pocket travel expenses on the road. When this happens, it often becomes an administrative problem later when bookkeepers attempt to match those advances to the respective expense reports. Concur solves this problem by tracking employee advances at inception, and reporting those cash advances in the submitted expense report for easier matching.

67. Tax Consequences - There are many reasons why business travelers should maintain detailed records of business travels. In the event of an IRS audit, the IRS may ask the traveler to verify the business purpose of the trip, and provide documentation for the mileage incurred and amounts expended.

For example, the U. S. Tax Code provides an

"associated-with" rule related to the deductibility of entertainment incurred on a business trip. This rule outlines that entertainment expenses are deductible when incurred immediately before or after a business meeting or event, when those expenses are "associated" with that business meeting or event. For example, a pre-arranged trip to the symphony for four attendees after a business meeting would be deductible (subject to limitations), whereas a trip to the symphony by two of those attendees who make those arrangements well after the meeting has concluded, would not necessarily be deductible. This example illustrates a fine line between what is and is not deductible. In this situation, the detailed Concur Breeze expense reports substantiating the deduction coupled with the TripIt itinerary might provide solid evidence that the symphony event was pre-arranged, and therefore deductible (subject to limitations).

68. **Sales Tax Deductibility** – While meals and entertainment expenses incurred on a business trip are only 50% deductible, the sales and local tax portions of those expenses are fully deductible. Many small businesses miss this important concept and as a result, under report their deductible expenses. Concur Breeze solves this problem by providing the ability to break out the sales and local tax portions of those expenses in the case of e-receipts, or allows the user to record these details manually. In the case when e-receipts are used, these amounts are broken out automatically.

69. Per Diem Reimbursements – Instead of reimbursing actual out-of-pocket expenses, many companies reimburse travelers using per diem rates, such as $75.00 per day for meals. In this case, the company can deduct the full per diem reimbursed for tax purposes, but any reimbursable amount exceeding the federally approved per diem reimbursement rates are reportable on the employee's W-2 form as income. The current federally approved per diem reimbursement rates are available from the U.S. General Services Administration, as shown below for New York State.

GSA U.S. General Services Administration

WHAT GSA OFFERS   DOING BUSINESS WITH GSA   LEARN MORE

Home > Policy & Regulations > Travel, Transportation, & Relocation > Travel Management > Per Diem > Per Diem Rates > Perdiem Rates Overview

FY 2011 Per Diem Rates for New York
(October 2010 - September 2011)

ADDITIONAL PER DIEM TOPICS
* Meals & Incidental Expenses

You searched for: **New York**

| Primary Destination* (1) | County (2, 3) | Max lodging by Month (excluding taxes) | | | | | | | | | | | | Meals & Inc. Exp.** |
		2010 Oct	Nov	Dec	2011 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
Standard Rate	Applies for all locations without specified rates	77	77	77	77	77	77	77	77	77	77	77	77	46
Albany	Albany County	104	104	104	104	104	104	104	104	104	104	104	104	61
Binghamton / Owego	Tioga County, Broome County	90	90	90	90	90	90	90	90	90	90	90	90	46
Buffalo	Erie County	98	98	98	98	98	98	98	98	98	98	98	98	56
Floral Park / Garden City / Great Neck	Nassau County	143	143	143	143	143	143	143	143	143	143	143	143	66
Glens Falls	Warren County	92	92	92	92	92	92	92	92	92	133	133	92	66
Ithaca / Waterloo / Romulus	Tompkins County, Seneca County	114	114	114	114	114	114	114	114	114	114	114	114	46
Kingston	Ulster County	101	101	101	101	101	101	101	101	101	101	101	101	66
Lake Placid	Essex County	103	103	124	124	124	99	99	99	99	145	145	103	61
Manhattan (includes the boroughs of Manhattan, Brooklyn, the Bronx, Queens and Staten Island)	Bronx County, New York County, Kings County, Queens County, Richmond County	269	269	269	192	192	192	212	212	224	224	224	295	71
Niagara Falls	Niagara County	77	77	77	77	77	77	77	77	100	100	100	77	51
Nyack / Palisades	Rockland County	103	103	103	103	103	103	103	103	103	103	103	103	61
Poughkeepsie	Dutchess County	95	95	95	95	95	95	95	95	95	95	95	95	66

The table above presents current federally approved per diem rates, which vary by city, and in some cases, vary by month, as is the case above for Manhattan. For companies with multiple and frequent travelers, the process of looking up per diem rates as defined by the government, and comparing them to per diem rates paid to employees for not only each expense report, but for each day represented in the expense report is a daunting task. Concur solves this problem by preparing expense reports using the GSA approved per diem rates based on city and month. In addition, Concur also prepares reports detailing actual per diem amounts verses GSA approved per diem amounts for tax reporting purposes.

There are many rules businesses must comply with in order to reimburse per diem rates. For example, per diem reimbursements are allowed only when the work is performed at least fifty miles from your tax home and includes an overnight stay. Further, only 75% of the

per diem rates apply to the first and last days of travel. Concur helps businesses comply with these complicated rules by performing the necessary calculations and adjusting amounts as necessary.

70. **Direct Deposit Reimbursement** – Concur supports a variety of reimbursement options, including printed checks and paperless direct deposit methods. By using direct deposit methods, the company reduces labor and paper costs, and the employee is reimbursed more quickly and avoids the need to deposit checks at their bank.

71. **DCAA and Sarbanes-Oxley Compliance** – Small businesses performing work for larger government entities and public companies may be required to submit expense reports in compliance with DCAA and Sarbanes-Oxley regulations. Among other measures, these regulations dictate that changes to submitted expense reports be reflected in a detailed audit trail, and expenditures for entertainment, mileage and lodging include specific information describing the business nature of these charges. Concur complies with these directives by providing the necessary audit trail and additional fields for collecting specialized information for each expense line item.

72. **Accounting System Integration** – Concur integrates with top accounting systems to seamlessly pass travel and expense data to the accounting system. This functionality eliminates the need for rekeying data, which both saves time and promotes greater accuracy. For example, Concur integrates with Microsoft's Dynamics GP to support the submission and approval of expense reports, and approved expense reports flow directly into the Payables Management module. Companies using this particular solution reported that they cut expense report processing time by over 60%, identified employee expense fraud, and reduced expenses by better managing the employee travel policy [16].
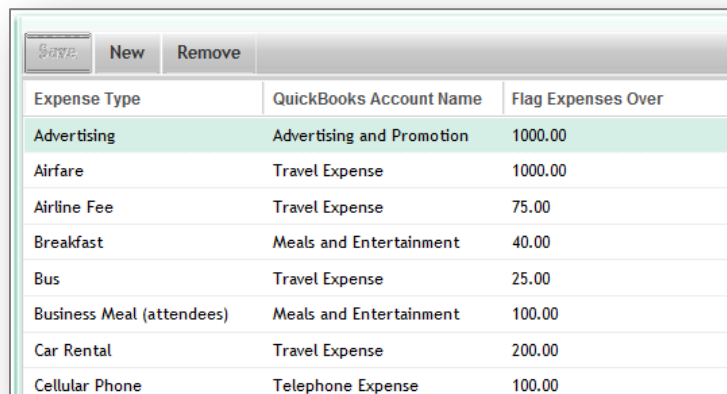
73. **Reconciliations** – As a conclusion to each trip, Concur provides a reconciliation report comparing what was booked to what was actually spent. This automated report identifies unexpected or unbudgeted travel expenses and cost overruns, which can help management determine how to better budget and book future trips.

74. **Analytical Reports** – Concur offers a variety of management reports to help companies analyze their travelers, and travel expenditures. The available reports identify top spenders, most frequently used vendors, and expenses by expense types. This information might be useful in reforming the spending habits of a top spender, or for negotiating a better discount with a preferred vendor. Reports and report data can be exported to Excel for further analysis.
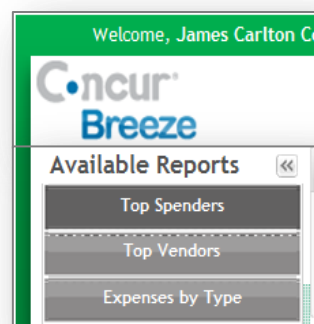
75. Policy Management – Using Concur's built-in functionality, companies can establish thresholds to flag expenses that exceed specified amounts. The screen below shows an example of this functionality as the airfare threshold is set to $1,000.

Save	New	Remove		
Expense Type		**QuickBooks Account Name**	**Flag Expenses Over**	
Advertising		Advertising and Promotion	1000.00	
Airfare		Travel Expense	1000.00	
Airline Fee		Travel Expense	75.00	
Breakfast		Meals and Entertainment	40.00	
Bus		Travel Expense	25.00	
Business Meal (attendees)		Meals and Entertainment	100.00	
Car Rental		Travel Expense	200.00	
Cellular Phone		Telephone Expense	100.00	

In this example, if an airfare expense exceeding $1,000 is entered, Concur Breeze displays an alert for that line item, letting the employee know that their spending exceeds expense policy. Because airline tickets are typically purchased several weeks prior to travel, an employee who adds their expenditures to their expense report on a timely basis will be reminded of the overspending in time to take corrective measures. For example, if the employee has unknowingly booked an expensive airfare during a heavy holiday travel period, they may be able to reschedule their meeting to an earlier or later week to obtain an airfare within policy limits.

76. Multi-National Support – Concur Breeze is designed as an international solution in many ways. For example, United States tax law allows a 2011 business mileage deduction rate of 51 cents per mile, regardless of the type of vehicle. However, in Germany, this rate varies depending upon the type of vehicle, the size of engine, and even the engine's horsepower. Concur recognizes many such differences and incorporates those differences into their solution. Concur supports multiple languages, including U.S. and UK English, French, French Canadian, German, Italian and Spanish. This enables business travelers to submit expense reports in their native language. Concur supports multiple currencies, enabling users to capture expenses using the native currency which is automatically converted to the base currency, flowing seamlessly to the user's accounting system.

TRIP BOOKING SOLUTIONS

CONCUR PREMIER, AND OTHER SOLUTIONS

Concur Premier is an enterprise-class travel booking and expense reporting solutions targeting large enterprise organizations. While this special report targets travel and expense management for small businesses, this section of the report is included for the following two reasons.

1. Some small to medium sized business may outgrow the feature set provided by Concur's small business solution, Concur Breeze; and if so, it is useful to know that Concur offers those users an upgrade path to a stronger solution.

2. Many of the features provided by Concur Premier are in the process of being incorporated into Concur Breeze, such as travel booking capabilities. (The company has not publically announced an official launch date for releasing these new features in Concur Breeze.)

In addition, there are a multitude of other proven solutions for enhancing the travel and expense management functions, many of which are mentioned below, along with more benefits offered by Concur Premier and these other solutions.

77. **Searching and Booking Travel Options** – Concur Premier provides trip planning and booking information for more than 25 car rental companies, 720 airlines, 115 insurance companies, 190 tour operators, 50 cruise and ferry lines, 85,000 hotel properties, and 100 railway companies. To help users locate the best options and lowest fares, Concur Premier provides complex programming that filters through the data to present the best options, which meet the user's policies and criteria. Studies show that this technology helps the typical business traveler reduce their travel costs by 15% to 20% [17].

78. **Amadeus** – Concur's trip planning and booking functionality derives data from many sources, including Amadeus, a trip-booking platform for many large travel agencies. Concur Premier ties into Amadeus to provide Concur users with the same access to services as high-powered travel agencies. For example, Amadeus provides a solution called "Master Pricer", in which the company claims its' built-in algorithms help travelers save 15% to 20% when booking travel. [17] The Amadeus data processing center processes more than 10,000 transactions each second and, in 2009, processed 670 million billable travel transactions [17].

79. **Worldspan** – Concur Premier also ties into Worldspan, an organization that maintains a network of electronic data services provided by more than 800 travel suppliers. Initially formed in 1990 by Delta Air Lines, Northwest Airlines, and TWA to host and manage the airline's IT services, today Worldspan is used by travel agents and travel related websites to book airline tickets, hotel rooms, rental cars, and tour packages. Concur partners with Worldspan to provide Concur users with access to this same information.

80. **Official Airline Guide (OAG)** – Concur Premier is also integrated with OAG, the global leader in aviation intelligence, providing real time flight status information for more than 3,500 airports, 900 airlines and 75,000 daily flights [18]. OAG delivers real time information to Concur's smartphone application.

81. **Galileo** – Galileo integrates to Concur Premier is, a travelport platform and Global Distribution System (GDS) that provides travel content to travel agencies, corporations and travel suppliers worldwide. Primarily, Galileo provides computerized internet-based reservations systems, and is a value-added aggregator of travel inventory. The Galileo database allows users to access more than two million published and private airfares, agency-filed private fares, hotels, vacation packages, rail travel, and most major car rental companies' inventory. Concur integrates with Galileo to provide travelers with access to Galileo's information and services.

82. **RideCharge for Local Ground Transportation Rates** – The RideCharge solution allows Concur Premier users to connect directly to the dispatch and cashiering systems of metropolitan taxi fleets to obtain local metered rates for ground transportation that are up to 25% lower than standard rates.

83. **Avoiding Rental Car Walk-up Rates** – Because plans often change mid-travel, business travelers without a reservation may find that they need a rental car. Rental car companies typically charge significantly higher walk-up rates to travelers without reservations, therefore it is prudent to reserve a rental car first before walking up to the counter. In this situation, business travelers can use Concur Premier on their smartphone or tablet to make reservations quickly, even while standing in line at the rental car counter, to secure the lower rental rates.

84. **AMTRAK Travel** – In the Northeastern United States, AMTRAK offers one of the best options for traveling in bad weather. For those travelers, Concur Premier's integration allows travelers to use their smartphone or tablet to view, hold, reserve and purchase AMTRAK rail travel without the need to boot up a laptop, call an agent or search for a credit card number.

85. **VAT Refunds** - When U. S. travelers purchase goods in Europe and other countries, they pay a value added taxes (VAT) ranging from 7% to 25%, which is embedded in the sales price. In most cases, U. S. travelers may be eligible to apply for a refund of the VAT taxes. To qualify, the traveler must purchase a minimum amount of goods ranging from nothing ($0) in Ireland, to €175.01 (about $240) in France. A table of the VAT rates and refund thresholds for selected countries is shown below.

Country	VAT Rate	Minimum Expenditure	Minimum (in US$)
Argentina	21%	ARS 70	$18
Austria	20%	€ 75.01	$103
Belgium	21%	€ 125.01	$171
Croatia	23%	501 HRK	$93
Cyprus	15%	50 CYP	$22
Czech Republic	20%	CzK 2000	$113
Denmark	25%	300 DKK	$55
Estonia	20%	€ 38	$52
Finland	23%	€ 40	$55
France	19.60%	€ 175.01	$240
Germany	19%	€ 25	$34
Greece	23%	€ 120	$164
Hungary	25%	42,001 HUF	$209
Iceland	25.50%	4,000 ISK	$34
Ireland	21%*	0 (none)	0 (none)
Italy	20%	€ 155	$212
Korea	10%	30,000 KRW	$27
Latvia	22%	30.26 LVL	$59
Lebanon	10%	150,000 LBP	$101
Lithuania	21%	200 LTL	$79
Luxembourg	15%	€ 74	$101
Morocco	20%	2,000 MAD	$246
Netherlands	19%	€ 50	$69
Norway	25%	315 NOK	$55
Poland	23%	200 PLN	$71
Portugal	23%	€ 60	$82
Romania	24%	250 RON	$81
Singapore	7%	SG$100	$78
Slovakia	20%	€ 175	$240
Slovenia	20%	€ 50	$69
Spain	18%	€ 90.15	$124
Sweden	25%	200 SEK	$31
Switzerland	8%	CHF 300	$318
Turkey	18%	118 TRY	$75
U.K.	20%	£30	$48

Ireland going up to 22% in 2013, and 23% in 2014

Concur Premier helps travelers quickly identify eligible VAT refund opportunities, and when available provides the traveler with the necessary receipts, including the VAT portion of each purchase for submitting VAT refund applications. This enables the traveler to apply for and receive an immediate refund at the airport, rather than applying later and waiting 4 to 8 months for processing.

86. **MetrO for Public Transportation** – Concur partners with MetrO to provide information about the public transportation options in more than 400 cities world-wide. The service can compute complex routes involving multiple types of transportation and recommend the best options for minimizing commute time or cost.

87. **Yapta** – Yapta is a price monitoring service that continually monitors airfares and hotel rates and provides notifications in the event that refunds or credits are earned. Yapta reports in an analysis of 500 million price checks performed from May 2007 to December 2009, the seat prices on 45% of the flights drop before the cabin door closes, 15% of which made travelers eligible for refunds or credits [19]. In that same time period, Yapta claims to have identified over $250 million in savings for its' members, which represents an average of $334 per traveler each year. Concur

automatically interfaces with Yapta to help Concur users identify opportunities to obtain lower rates, refunds and credits.

88. **Mobiata FlightTrack** – Mobiata FlightTrack is a service that maintains important flight details such as arrival and departure times, gate locations, and airport terminal maps, including zoomable live flight tracker maps, covering more than 5,000 airports and 1,400 airlines [20]. Concur interacts with Mobiata automatically to provide FlightTrack information for flights, gates and terminals included in the traveler's itinerary.

89. **GateGuru** – GateGuru is a service that maintains information about the businesses and services offered near arrival or departure gates, concourses and terminals for more than 100 major airports located in the U.S. and Canada. GateGuru's information includes a listing of airport amenities (sortable by food, shops and services), and real-time ratings, reviews and photographs to help travelers quickly locate the highest rated restaurant, shop or service by other travelers. Concur is able to provide GateGuru's information to the traveler so they can more efficiently use the local services and amenities offered.

90. **Taxi Magic** – Unveiled in May, 2008, Taxi Magic is a service that allows Concur users to pay for taxi, limousine and shuttle services electronically using their smartphone. This solution is not only convenient for travelers, it helps reduce or eliminate over reporting of ground transportation expenses by travelers.

91. **Cognos** – Cognos Premier is a world-class business intelligence solution which provides, among other tools, pre-configured, bolt-on analytical tools PowerPlay and Impromptu. With more than one million users, in January 2008, Cognos was acquired by IBM, and helps to comprise several technologies underlying IBM's Business Analytics division. Using the Congnos tools, Concur provides analytical and ad hoc reporting, detailed analytical reporting, and drill down access to supporting transactional data.

92. **Intuit and Microsoft** – Concur provides built-in integration to popular accounting systems such as Intuit's client hosted versions of QuickBooks, and Microsoft's Dynamics GP and Dynamics NAV. Integration is provided via a Standard Connector, which produces an extract file with pre-defined export definitions that match the respective accounting systems. The result is that Concur produced expense reports and other data can flow directly into QuickBooks, Dynamics GP or Dynamics NAV. The Standard Connector tools can

be customized to interface Concur with almost any popular or customized accounting system.

93. **Go Airport Shuttle -** The GO Group provides airport shuttles at more than 50 airports in the United States, Canada, Mexico, Scotland, England, France and Italy. In each location, GO offers economical, convenient and earth-friendly ways to get to and from the airport.

94. **HasWifi -** HasWifi is a service that enablers travelers to check to see if their flight has Wi-Fi access on board. Travelers simply enter the airline and flight number on the HasWifi home page, and a report like the one shown below lets you know what to expect.

Carrier	Flight	Aircraft	Origin	Destination	HasWifi?	Well, did you?	Success
Delta	12	B752	Orlando, FL	Atlanta, GA	**Yes!**	Yes No	33.6%
Delta	12	B764	Atlanta, GA	London, England	No	Yes No	0%

95. **Delta Airlines App –** Many airlines, such as Delta Airlines, now offer smartphone and tablet apps to provide the traveler with easier access to flight information. For example, the Delta Airlines Android app provides the user with access to the following information.

- Check in for upcoming flights
- Download mobile boarding passes
- Check flight status; get terminal and gate info
- Search upcoming flight schedules
- View SkyMiles account information
- Check airport information and weather
- Save a photo to note your parking spot

96. **GasBuddy –** GasBuddy is a free service that provides real time gas prices in the traveler's locality to help them locate the lowest fuel prices available. The information provided by GasBuddy is based on gasoline prices entered daily by participating gasoline stations, and motorists who drive by.

97. **OpenTable** – OpenTable is a free service that enablers travelers to search more than 20,000 local area restaurants and book reservations. As reservations are booked in OpenTable, the reservation is instantly recorded in the restaurant's computerized reservation system. While some "online" reservation services rely on faxes or table allocations, OpenTable has live Internet connections into the restaurants themselves. So restaurant availability information is up-to-date, and your reservations are confirmed.

98. **FXware Currency Guide** - The FXware Currency Guide enables travelers to convert more than 160 currencies worldwide, using rates that are updated every two minutes.

99. **Hertz** – The Hertz smartphone app enables users to make reservations from their smartphone, and delivers iPhone users special deals each week.

100. **Marriott** – The Marriott smartphone app enables users to find and book a hotel, view or cancel reservations, view your Marriott Rewards account, and access city guides.

101. **Fuze Meeting** – Fuze Meeting is a smartphone and tablet app that enabler users to video conference with one another, delivering multi-party HD video conferencing at 720P. The app communicates using a secure channel, provides remote control screen sharing, and enables attendees to Fuze In (call in) from a regular telephone.

102. **Golfshot** - Golfshot is a smartphone golfing app that allows you to search and book available tee times at more than 35,000 golf courses throughout the United States. It tracks and keeps a permanent record of my scores, and on the course, tells me how far away I am from the hole. It is hard to think of a more useful business tool. Golfshot costs $29.99. (www.golfshot.com)

SECURITY ISSUES

The travel and expense management solutions discussed in this report raise fundamental questions related to information security on several levels, and rightly so. I would be remiss if I did not mention some measures for you to consider. To ensure that your efforts to improve travel and expense functions do not result in jeopardizing privacy, presented below is a checklist of security measures business travelers should consider to better protect their information.

1. **Lock Smartphones with PIN Numbers** – Most smartphones and tablets provide built-in locking capabilities; accordingly, travelers should secure their devices with passwords or PIN numbers to prevent unauthorized users from accessing the information stored therein.

2. **Smartphone Backup** - Backing up one's smartphone data is a good idea because cellular phones are prone to getting wet, damaged, lost or stolen. Most smartphones provide a free built-in utility, which once setup, continues to back up contacts, content, settings and

application data at intervals specified by the user. Not only will this procedure backup your contacts, it is also an effective method for moving your contacts from one cellular phone to another as you upgrade your phone.

3. **Smartphone Syncing** - As an alternative to using the backup utility described above, many smartphones offer USB data cable kits to synchronize smartphone data directly to a computer as a separate file, or synchronized to the user's desktop contact manager application.

4. **Carry an Extra Battery** – As powerful as smartphones are, they become useless when the batteries run out. To protect against this problem, users should consider carrying an extra charged battery just in case.

5. **Carry Extra Recharging Cables** – Smartphones and tablets typically include a single cable for recharging the device. Instead of juggle that one cable, smartphone users should consider purchasing additional recharging cables for home, the office and travel. For example, the smartphone user may be well served to keep an electric recharging cable at home, at the office, and packed in the user's travel bag. Additionally, it could be useful to keep rechargeable cables, which plug into a vehicle's power outlet (cigarette lighter socket) in one's personal vehicle and in one's travel bag for use when traveling.

While this suggestion may seem a costly proposition, in 2009 it was announced that many of the world's leading smartphone manufacturers have recently agreed to use the Micro-USB technology as the common universal charging interface for future smartphone and electronic devices [21].

6. **Forgotten Recharging Cable** – Many travelers forget to pack their recharging cables and discover the problem once they arrive at their hotel, after local stores have closed. In this situation, travelers might check with the front desk to see if they can borrow or procure a compatible recharging cable from lost and found. In many cases, hotels have boxes full of many types of cellular phone recharging cables, and the traveler may get lucky and find a match.

7. **Avoid Unprotected Wi-Fi** – An abundance of free Wi-Fi internet connections available in many hotels, restaurants, and office buildings make it convenient for business travelers to connect to the internet. However, using free Wi-Fi can be risky because information transmitted can be intercepted and captured by unseen identity thieves within range of the signal. For this reason, many security experts recommend that travelers avoid unprotected Wi-Fi connections and instead seek out encrypted connections, which require users to log into the router to establish an internet connection.

Note: There is little risk associated with using unprotected Wi-Fi connections for reading news stories, checking the weather, or perusing web sites. However, users should refrain from transmitting or e-mailing passwords and sensitive data in this situation.

8. **Avoid Protected Wi-Fi** – While securely encrypted Wi-Fi connections are preferred over unsecured connections, travelers should be aware that the owners of secured wireless routers could still intercept and decrypt data packets that pass through the router. Unscrupulous data thieves could even use an inexpensive wireless router to setup a secure Wi-Fi connection near a local business, which broadcasts that business's name, then handout flyers containing connection instructions to lure unsuspecting persons to connect. The point is that in most cases, one is rarely certain who owns the secured Wi-Fi router, or what they might be doing with the data that passes through.

   To be safer, users should connect their smartphones or tablets to the internet using the built-in 3G or 4G connections because these connections are securely encrypted from the device to the cellular service provider.

9. **Dead or Lost Smartphones** – It should be pointed out that if a business traveler damages or loses their smartphone or tablet, or the battery runs out, cloud based solutions such as TripIt and Concur Breeze maintain all data in a database cloud; therefore, the data is still accessible to the user upon logging in using an alternative internet connection.

10. **When the Internet is Unavailable** – Many people criticize cloud-based solutions because they are vulnerable when the internet goes down or is unavailable, a situation, which could potentially leave travelers stranded without their important itinerary information. This problem is addressed in two ways. First, TripIt and Concur's mobile solution continually synchronizes and holds the traveler's most recently accessed itinerary in the smartphone or tablet, even if the internet goes down. Secondly, most smartphones have the ability to access the internet by either Wi-Fi, 3G or 4G connections, and smartphone settings dictate that the device automatically uses the fastest connection. Therefore, if the Wi-Fi signal is unavailable, by default the smartphone will connect to the internet using backup connections.

11. **Privacy & Trust Issues** – Recognizing that security is always a key issue when a company manages private information, all of the solutions appear to include security measures, but none more so than Concur. Concur uses bank-level, 128-bit security for securing all connections and data files. Customer data and transaction information are stored at a secure facility protected by security guards around the clock, video surveillance, intrusion alarms and biometric security entry. Concur owns and controls all of the servers that contain its' clients' data. The company employs the services of several outside organizations to conduct regular external security and operational audits, including the following five respected security audits:

   1. ISO 27001   (Based on international security standards)

2. ISO 20000   (Based on int'l information technology standards)
3. SSAE16   (Based on U. S. operational audit standards)
4. ISAE 3402   (Based on international operational audit standards)
5. PCI DSS   (Based on payment card industry standards)

The company's security controls are audited twice each year by Grant Thornton, LLP, [22] and Concur undergoes several additional security audits regularly, such as an annual audit to ensure Sarbanes Oxley compliance. These extensive measures are undertaken in an effort to protect information and to promote confidence and trust.

CONCLUSION

In conclusion, smartphone applications coupled with cloud-based solutions now allow businesses to shift the travel and expense management functions from the office environment into the hands of business travelers. By unchaining these tasks from the office, the recommended solutions help convert idle travel time on the road into more productive administrative time. The proposed solutions also have the potential to dramatically enhance the travel experience, and produce positive results in dozens of ways that are difficult to measure, but very easy to visualize.

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J. Carlton Collins, CPA is a Certified Public Accountant with experience in technology, tax, auditing, accounting systems, financial reporting, and bond financing. He is an author, lecturer, and technology & accounting systems consultant. He has published books, articles, and web pages and is the author of the monthly technology Q&A column for the Journal of Accountancy. As a public speaker, Mr. Collins has delivered more than 2,000 lectures in 44 states and 5 countries addressing more than 500,000 CPAs and business professionals. As a consultant, Mr. Collins has assisted 275+ large and small companies with the selection and implementation of accounting systems. Mr. Collins has a Bachelor's degree in Accounting from the University of Georgia, is a 25+ year member of the American Institute of CPAs and the Georgia Society of CPAs, and is also a licensed realtor.

Summary of Selected Positions, Awards & Accomplishments:

1. Honored as one of the CPA Industries Top 25 Thought Leaders by CPA Technology Advisor Magazine
2. Author of the monthly Technology Q&A column for the Journal of Accountancy.
3. Recipient of the AICPA's Lifetime Technical Contribution to the CPA Profession Award.
4. Chairman of the Southeast Accounting Show - the South's largest CPA event.
5. Recipient of the Tom Radcliff Outstanding Discussion Leader Award.
6. Named "Top Ten CPA Technologists" by Accounting Technologies Magazine (multiple years).
7. Named "Top 100 Most Influential CPAs " by Accounting Technologies Magazine (multiple years).
8. Has personally delivered over 2,000 technology lectures around the world.
9. Recipient of the Outstanding Discussion Leader Award from the Georgia Society of CPAs.
10. Lead author for PPC's Guide to Installing Microcomputer Accounting Systems.
11. Has installed accounting systems for more than 200 companies.
12. Chairperson of the AICPA Technology Conference.
13. Recipient of the ACCPAC Partner of the Year Award.
14. Determined by SAP to be one of the country's "Top Ten Most Influential ERP Systems Consultants".
15. Has delivered keynote and session lectures at dozens of accounting software conferences.
16. Sworn in as a Certified Public Accountant on September 18, 1985.
17. Member of the American Institute of CPAs since 1985.
18. Member of the Georgia Society of CPAs since 1982.

As an auditor, Mr. Collins has audited businesses in the areas of health care, construction, distribution, automobile dealerships, insurance, manufacturing, and general business. Mr. Collins' tax experience includes corporate, individual, partnership, fiduciary, and estate tax planning work. In the area of finance, Mr. Collins has prepared (or assisted in preparing) feasibility studies and financial forecasts for nearly 300 projects seeking more than $3 billion in startup capital. Mr. Collins is familiar with bond issues, Medicare and Medicaid reimbursement, and conventional financing matters. In 1992, Mr. Collins contributed and demonstrated more than 500 pages of suggested design improvements to the Microsoft Excel development team of programmers - and many of those improvements are found in Excel today.

At the University of Georgia, Mr. Collins was elected President of the Phi Eta Sigma Honor Society, was initiated into the BIFTAD Honor Society, served three years in the Judicial Defender/Advocate program, and was a member of Alpha Tau Omega fraternity. At Glynn Academy High School, Mr. Collins was Senior Class President, Class Valedictorian (1 of 6), and received a principle nomination to Annapolis Naval Academy. Mr. Collins has been married for 27 years and has two children. He devotes his leisure time to family, travel, tennis, fishing, snow skiing,

and riding motorcycles (both dirt and street). Mr. Collins is president of his homeowners association, participates in the Gwinnett Clean and Beautiful program, and volunteers for Cooperative Ministries food drive.