Mobile Payment –
How It Will Transform Corporate
Travel and Expense Management

AIRPLUS. WHAT TRAVEL PAYMENT IS ALL ABOUT.

As one of the travel and technology experts interviewed for this white paper describes the present situation, "There is no adoption yet of mobile payment in the corporate environment but there is a lot of interest."

It is precisely for this reason that AirPlus International and ACTE have produced this white paper, especially as some findings in the survey suggest buyers have negative perceptions about mobile payment (security concerns, for example) that may not be correct. On the other hand, they may not be aware of the many potential benefits that mobile payment promises.

Contents

Introduction

A crucial topic, but little knowledge

Paying for a hotel stay, a meal or a train journey by waving a cell phone over an electronic reader is now a reality. This breakthrough opens up many new possibilities for improving corporate travel: more convenience and smarter purchasing choices for travelers, increased data visibility, process efficiencies and program control for travel managers.

At present, however, implementation and understanding of mobile payment is limited. In a survey of buyer members of the Association of Corporate Travel Executives conducted for this white paper, 53% of respondents rated their knowledge of mobile payment as beginner level, while another 41% rated their knowledge as moderate and only 6% rated themselves as expert.

For more information, please see page 6, charts 1, 2 and 3.

This finding is unsurprising given that few companies have experience of mobile payment. Only 22% of respondents said any of their travelers have used the technology. When they have, it has mainly been to pay for ground transportation or meals.

As one of the travel and technology experts interviewed for this white paper describes the present situation, "There is no adoption yet of mobile payment in the corporate environment but there is a lot of interest." It is precisely for this reason that AirPlus International and ACTE have produced this white paper, especially as some findings in the survey suggest buyers have negative perceptions about mobile payment (security concerns, for example) that may not be correct. On the other hand, they may not be aware of the many potential benefits that mobile payment promises.

To the best of our knowledge, this is the first white paper to deal specifically with the expected implications of mobile payment for corporate travel. It is hoped the paper will spark more interest in and understanding of the subject, because, if the applications of mobile payment suggested here come to fruition, they are set to have a profound effect on travel and expense management.

Technologies

Mobile payment for corporate travel purposes brings together the following technologies:

Mobile wallet
Virtual versions of different payment methods stored together on a cell phone. Examples of mobile wallet contents include: corporate credit card, limited-used cards, personal credit and debit cards, stored-value electronic cash, and loyalty program membership.
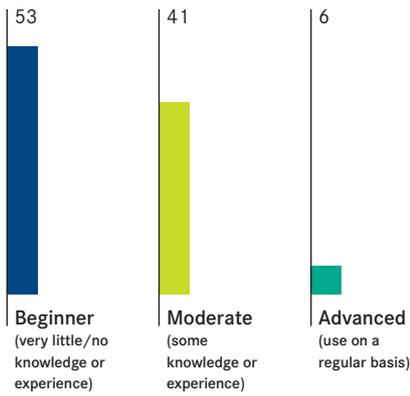
Near Field Communication (NFC)
A form of contactless payment for mobile devices using radio signals. By waving a mobile device over an NFC-compatible reader, payment can simultaneously be transmitted in one direction while data is transmitted about the payment in the other.

Smart payment mechanism
A mobile device offers smarter payment than a plastic card because it is essentially a mini-computer equipped with: a display, a keypad, the ability to send and receive information, the ability to locate itself, and the ability to "talk" to other functions such as an expense management app or a mobile trip itinerary.
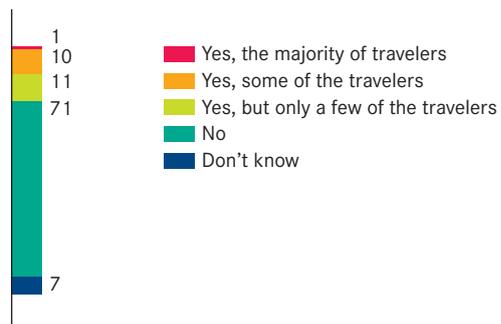
1 Please describe your prior knowledge or experience with mobile payments.
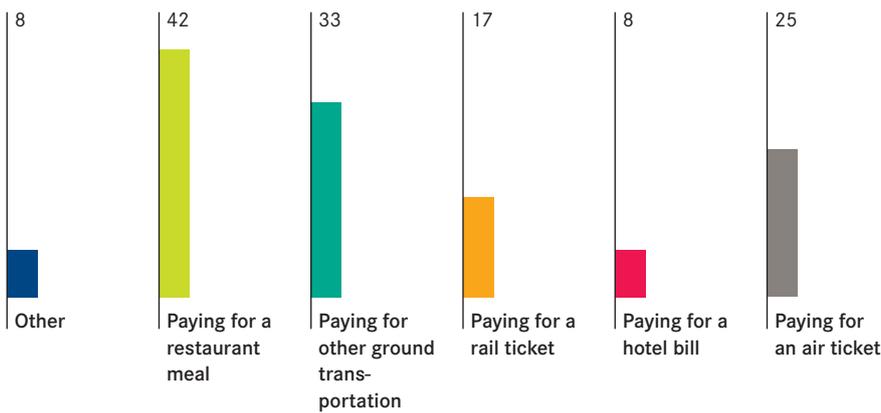Total: 100%

Beginner (very little/no knowledge or experience)	Moderate (some knowledge or experience)	Advanced (use on a regular basis)
53	41	6

2 Are travelers in your organization currently using their mobile phones as a payment mechanism?
Total: 100%

1
10
11
71
7

■ Yes, the majority of travelers
■ Yes, some of the travelers
■ Yes, but only a few of the travelers
■ No
■ Don't know

3 For which of the following services have your travelers used their phones to make payments? Select all that apply. Please note only the option where the transaction was completed and paid for using mobile capabilities.
In %

Other	Paying for a restaurant meal	Paying for other ground trans- portation	Paying for a rail ticket	Paying for a hotel bill	Paying for an air ticket
8	42	33	17	8	25

Executive Summary
Six Advantages of Mobile Payment for Corporate Travel

Mobile payment promises the following advantages over existing payment processes

1. Linking to the expense management system – traveler benefits

> **On-the-spot compliance checking** – the expense tool can indicate at point of sale if a transaction is in line with policy or not.

> **More flexible expense reporting** – mobile payment transactions appear in the traveler's reporting tool in real time, meaning travelers can manage the transactions immediately.

> **More comprehensive expense reporting** – The expense tool can take pre-populated feeds from more payment methods, e.g. stored-value cash card used to buy coffee.

2. Linking to the expense management system – travel manager benefits

> **Pocket-sized compliance manager** – Policy management at point of sale is more effective but less intrusive.

> **Faster data capture** – Real-time payment data capture enables faster decision making.

> **Greater visibility** – More electronically captured payment methods means more, and more accurate, visibility of spend.

> **Greater policy sophistication** – mobile payment and expense reporting apps can link with GPS for policy refinement based on location.

3. Other data improvements

> **Employee data** – Details such as project code or cost center can be appended to on-trip payments.

> **Reconciliation of pre-trip booking data and on-trip payment data** – Match can be made through GPS positioning.

> **Level 3 data** – Hotel invoices, in theory, can be uploaded to the traveler's phone.

> **Hotel, restaurant and gas station identification** – Accurate identification of merchant through GPS positioning.

... USD 50 billion of mobile NFC-enabled payments are expected by 2014.

4. Smarter payment choices

> **Replacing cash** – More use of stored-value cards means fewer inefficiencies and security risks surrounding cash.

> **Adequate funds** – Ability for traveler to switch to different card in mobile wallet if close to funding limit.

> **Multiple limited-use cards** – Ability to use different virtual card numbers for different projects.

> **Different currencies** – Easier to pay in different currencies, reducing interchange and conversion fees.

> **One bill, different payment methods** – Traveler could pay for in-policy items on bill with virtual corporate card (e.g. standard room rate) and non-policy items with virtual personal card (e.g. room upgrade).

5. New areas of spend

> **Out-of-pocket payments** – Leads to improved spend visibility of smaller items.

> **Public transportation** – Easier to pay and reclaim, leading to cost and environmental savings.

> **Airline ancillary fees** – By linking through a mobile itinerary, the ancillary fee can be tied to the original ticket purchase.

> **Meeting room payment** – Using phone as payment method and "room key" for meeting rooms generates accurate data about meetings durations.

6. Traveler tracking

Real-time logging of transaction data in expense reporting systems makes it faster to track travelers by their payment history.

Strengthening travel programs, not weakening them.

Conflicting opinions and still little knowledge

Mobile payment experts predict major benefits but buyers are worried

In a survey of ACTE buyer members commissioned for this white paper, 18% of respondents think mobile payment will make travel management easier, while 23% think it will be harder, 22% think it will be the same and the rest don't know.

Experts interviewed for the white paper say mobile payment will make travel management harder if it is not integrated into the travel program, but easier if it is integrated. Since the technology improves the experience of travelers, they will inevitably adopt it, bringing the advantages listed above for travel managers too. However, because mobile payment is so attractive, travelers will adopt it whether it is part of the corporate process or not.

Mobile payment is secure

Almost one-third of buyer respondents (33%) believe mobile payment is less secure than mobile cards. However, expert interviewees agree with the 8% who think it is more secure. Reasons include:
> NFC signals are difficult to intercept.
> NFC-enabled payments can be confirmed with a PIN number.
> Cell phone owners can make one call to block all cards in their mobile wallet.
> Mobile payment will increase use of limited-use cards, which are exceptionally secure.
> Travelers can detect abnormal use of their cards faster.

Next steps

Mobile payment solutions provider NEXPERTS predicts 30% of handsets in use in 2014, and 50% in 2015, will be NFC-enabled in certain markets. Meanwhile, payment and expense management providers specializing in corporate travel are working hard on research and development of new apps. The main barrier to progress is considered to be a lack of merchants with NFC-enabled payment terminals – only 2% of US merchant locations were equipped with them in 2011 (source: Visa, quoted in pcmag.com).

However, the consultancy firm Juniper estimates there will be USD 50 billion of mobile NFC-enabled payments by 2014. Interviewees for this white paper forecast the first significant use of mobile payment in the corporate market in 2013, with accelerated adoption from 2014 onwards.

Basics
What is Mobile Payment?

The technologies

Mobile payment is the use of a smartphone or other mobile device to authenticate, authorize and initiate a payment. The phrase covers a range of payment and communications technologies and services. At this early stage of mobile payment development, the technologies that look most relevant to corporate travel are:

Mobile wallet

A mobile wallet collects virtual versions of different payment methods and stores them in one place on a user's phone. Users can select which is the most appropriate form of payment for each transaction they make. Examples of what might be stored in a mobile wallet include:

> Corporate credit card
> Limited-use cards for use with a specified vendor up to a specified limit
> Personal credit card
> Personal debit card
> Stored-value electronic cash, from which money is debited directly
> Vendor-specific stored-value cards, e.g. public transport cards
> Bank account details to authorize direct debits
> Loyalty program memberships for payment with loyalty points
> Discount offers from vendors

Near Field Communication

NFC is a form of contactless payment for mobile devices using radio signals. Cell phone users wave their device over an NFC-compatible reader to send and receive information. This exchange can simultaneously authorize a payment in one direction while transmitting data about the payment in the other direction.

Cardholder-not-present transactions

Cell phone users can also make a virtual card payment when not in front of the vendor, e.g. to pay for an air ticket. This is predominantly a pre-trip payment service, whereas this white paper will concentrate generally on on-trip payment services.

Other mobile payment services that are gaining attention but currently look less relevant to corporate travel include:

> **Direct billing** – Authorizing a payment that is charged to the user's cell phone account
> **Mobile banking** – Authorizing a money transfer from the user's bank account
> **Cell phone as card reader** – Attaching a device to a cell phone that makes it a portable card reader, e.g. Square
> **Cell phone-to-cell phone payment** – Touching phones to transfer stored-value cash from one phone to another, e.g. PayPal iPhone app

The benefits

From a dumb payment mechanism to a smart payment mechanism

Existing infrastructure …

Combining mobile wallet and NFC technologies will allow business travelers to pay through cell phones for their most important transactions, such as accommodation, meals and fuel, in a very similar way to how they use a plastic corporate card today. Although NFC is not yet widespread among merchants, it is an internationally accepted standard. Consequently, it is expected to become ubiquitous over the next few years, although some NFC data communication functions may eventually be replaced by cloud computing technology.

Although merchants will need to introduce NFC readers, the great advantage of payment through a mobile corporate card is that much of the existing infrastructure can be retained. For example, payment is made through the same card scheme (e.g. Master-Card or Visa) as for plastic card payments.

NFC is also very fast. The data exchange is almost instantaneous. However, for security purposes the user can be invited to validate the transaction with a PIN number. The PIN can be typed into the vendor terminal or the phone. For small purchases, no validation is necessary, as is the case today for public transportation system payment processes, such as the London Transport Oyster card.

… but new applications

Although much of the existing payment infrastructure remains the same for mobile payment, so much more can be done with a smartphone than a plastic card.
A smartphone is essentially a mini-computer with:
> a display that can be read before, during and after the transaction
> a keypad
> the ability to send and receive information
> the ability to locate itself
> the ability for different functions within a phone to talk to each other. For example, the mobile payment function can interact with a mobile expense management app and mobile trip itinerary.

Combining these benefits with a mobile wallet and NFC creates numerous new functions and enhancements that are impossible with a plastic card. These applications will be considered in the next section.

Transformation
Future Impact

How will mobile payment transform corporate travel and expense management?

Experts and travel buyers – unaligned views.

The expert view: great for travelers, great for travel managers

All the experts interviewed for this white paper are convinced that the new applications made possible by mobile payment will produce significant benefits for travelers and travel managers alike. For travelers, payment and expense management processes will be quicker and easier, and will lead to smarter decision-making. For travel managers, there will be improved data. Perhaps even more importantly for travel managers, the attractiveness of mobile payment should lead travelers to make more intelligent and compliant buying decisions without even realizing it.

The buyer view: great for travelers, more ambivalent for travel managers

Buyers who participated in the survey commissioned for this white paper are similarly optimistic that travelers will benefit from mobile payment. However, many have not yet arrived at the same conclusion as the mobile payment experts that what works well for the traveler also works well for the travel manager.

For more information, please see page 14, charts 4 and 5.

Reasons for the mismatch

While 43% of respondents think mobile payment will make life easier for travelers, far fewer (9%) think it will make life harder for them. However, only 18% think mobile payment will make life easier for travel managers, compared with 23% who think it will make their life harder, and 22% who believe it will make no difference.

It is important to note, though, that the largest number of respondents have no opinion with regard to either question; and to recall that 53% of respondents classify themselves as beginners in their knowledge of mobile payment, while another 41% classify themselves as having only moderate knowledge. Given that the expert interviewees believe there are substantial benefits for travel managers as well as travelers, a provisional conclusion can be made that buyer concerns about mobile payment are based on lack of knowledge rather than sound information.

Perceived benefits

For more information, please see page 14, charts 6 and 7.

When asked what the main advantage of mobile payment will be for travelers, the most popular answer among the buyer respondents was more convenient form of payment during a trip (57%), followed by less work to complete expenses after a trip (32%). "If the security can be guaranteed, then it's an easy decision to switch to mobile payments," commented one respondent. "The less manual paperwork the better for my travelers."

As far as benefits for travel managers are concerned, improved ability to track travelers comes top (46%), followed by improved quality of data and improved compliance with policy (both 27%). However, not too much should be read into the answers to this question, as the response rate was very low.

The advantages of mobile payment

According to the experts interviewed for this white paper, mobile payment creates the following new opportunities for corporate travel. Some of the ideas expressed below are a reality today. Others are theoretically possible but have not yet been put into practice.
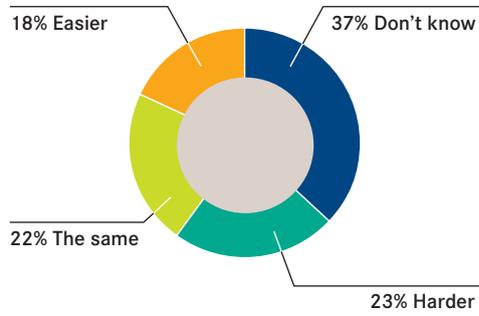
4 Will mobile payment make life easier for travelers in your organization?
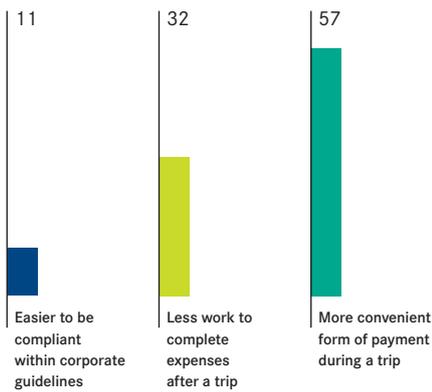Total: 100%

43% Easier

42% Don't know

6% The same

9% Harder
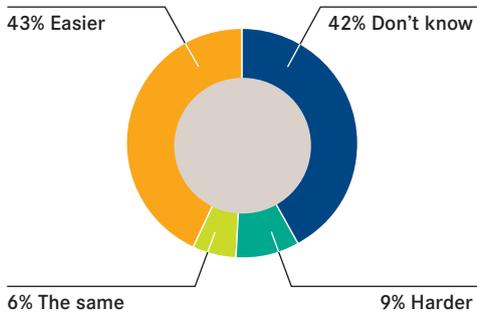
6 Will mobile payment make it easier for companies to manage their corporate travel programes?
Total: 100%

18% Easier

37% Don't know

22% The same

23% Harder

5 What do you think will be the biggest advantage of mobile payment for corporate travelers?
Total: 100%

11 — Easier to be compliant within corporate guidelines

32 — Less work to complete expenses after a trip

57 — More convenient form of payment during a trip

7 What do you think will be the biggest advantage of mobile payment for travel managers?
Total: 100%

46 — Improved ability to track travelers

27 — Improved quality of data

27 — Improved compliance with policy (travel spend)

43% think mobile payment will make life easier.

How it benefits travelers – linking mobile payment to the expense management system

The expert view is that mobile payment will create only limited benefits for business travelers or travel managers unless it is linked to an automated expense management system, including an app for the traveler on the same phone. If this link is made, advantages include:

On-the-spot compliance

The expense tool can indicate at point of sale whether the intended mobile payment is compliant with policy. It will not be able to block the payment but it will be able to inform. If a company wants to limit use of a virtual corporate card, it does have the option to block certain merchant categories and/or set a credit limit, just as it does for a plastic card.

On-the-spot compliance checking gives travelers the confidence of knowing whether they are in line with policy or not. It also means they do not have to carry out any special tasks to check a policy rule. Instead, policy becomes a natural part of an administrative function (i.e. payment) they have to perform anyway while traveling. Mobile payment therefore becomes a pocket-sized compliance manager.

Easier expense reporting – more flexibility

Data on a payment made through a plastic corporate card typically takes 24-48 hours to flow into an automated expense report. A mobile payment transaction can appear in a report in real time. As a result, travelers can manage their expenses immediately after paying for them, for example to assign different expenses to different project codes, or to indicate whether expenses are professional or personal.

Easier expense reporting leads to more efficient use of time, because travelers have complete flexibility as to when they manage their expenses, e.g. in a taxi immediately after checking out of a hotel.

Easier expense reporting – more comprehensive

Expense reporting tools today take feeds from plastic corporate cards that automatically pre-populate the expense claim. Mobile payment theoretically allows any payment method selected from the traveler's mobile wallet to be connected to the expense tool. That means taking a feed not only from the virtual equivalent of the plastic corporate card, but also, for example, from one-time cards or a stored-value cash card.

Consequently, fewer expenses will need to be entered manually into the expense report. For example, it could eliminate the need for manual entry of out-of-pocket cash purchases, such as cups of coffee, which is one of the most time-consuming administrative tasks for travelers. With mobile payment, these items will increasingly be paid using mobile stored-value cash.

How it benefits travel managers – linking mobile payment to the expense management system

Improved policy compliance

> **Mobile payment as a pocket-sized compliance manager** – As described above, indicating whether a purchase is compliant at point of sale makes policy management more effective and at the same time less intrusive or cumbersome. Consequently, willingness to comply improves (see below for fuller discussion).

> **More flexible use of time** – Greater convenience also increases traveler enthusiasm for automated expense reporting, thus driving compliance.

Better data in expense management system

> **Faster, real-time capture of payment data** – Faster capture means faster decision-making. For example, the data can be shared real-time with budget managers, who can obtain a current, not historic, view of how much is being spent on travel and whether the spend is within budget.

> **Faster management of expense reports by travelers** – Reporting by travelers is more accurate because the transaction is fresher in their minds – e.g. correct cost-center attribution.

> **Direct capture of more payment methods in the expense reporting tool** – More payment methods means more, and more accurate, visibility of a larger proportion of travel spend.

> **Greater policy sophistication** – Policy can be tuned more finely. For example, GPS positioning could be used to warn a traveler that the coffee they are buying will not be reimbursed because it is being purchased within three miles of their workplace.

Other ways in which data is improved

Employee data

It is possible to append employee data to each mobile corporate card payment, such as the project code or cost center. Until now, it has only been possible to append this type of information to pre-trip payments made through a company account (also known as a centrally billed account or lodge card). Mobile payment makes it possible to tie employee data to on-trip transactions.

Reconciliation of pre-trip booking data and on-trip payment data

If travelers have a hotel booking on a mobile itinerary app, then it should become possible to match the reservation, and the rate quoted, with the payment made on departure. Reconciliation is often hard to achieve manually because the total paid on departure is usually higher than the booked price owing to extra charges the traveler has incurred, such as breakfast or laundry.

The match is made through the use of GPS, which can indicate that the location of the hotel where the traveler is about to make a payment is the same as the one for which he or she has a booking in their mobile itinerary. The traveler is invited to confirm the match is accurate.

As a result, reconciliation with the original booking data is greatly improved. Travel managers can see more accurately which hotel reservations became actual hotel stays and which ones the traveler did not check in for. They can also learn how much the traveler spent on extras and, depending on the quality of data from the hotel (see next paragraph), whether the paid room rate matched the booked room rate.

Level 3 (folio) data

Theoretically, a traveler checking out of a hotel should be able to upload a fully itemized e-invoice into their smartphone when making a mobile payment. This would give travel managers a much better breakdown of accommodation costs, and enable them to negotiate more accurately on extras such as breakfast or laundry. However, turning theory into practice could take a long time, just as has been the case with obtaining folio data through conventional plastic card payments. Even within the same chain, different hotels use different property management systems, and progress in linking all of them to NFC readers may prove slow.

Better hotel identification

Leaving aside the more sophisticated issue of booking and payment data reconciliation described above, a more fundamental management information challenge for travel managers is matching different payment transactions for the same hotel. The problem is caused by the use of slightly different names for the same property, or two properties within the same hotel group being located near each other, or in cities with similar names. GPS positioning will help the traveler to pinpoint the correct identity of the hotel at point of sale (there can only be one hotel in that precise location), and the GPS location can effectively act as a unique identifier.

Better restaurant and gas station identification

Another mismatch in management information can occur when a receipt or card entry from a restaurant or gas station quotes the address of the chain's head office instead of the individual establishment. Again, GPS positioning can help avoid this confusion at point of sale.

Smarter payment choices

A mobile wallet gives travelers more flexibility to make smarter selections of the most appropriate form of payment for each transaction. Examples include:

Replacing cash

As already discussed, a stored-value cash mobile payment saves travelers time because it loads the data automatically into their expense report. Other benefits of going cashless include:
> More, and more accurate, data capture
> Lower security risk for travelers of carrying bundles of cash
> Lower foreign exchange conversion costs
> Less "dead" cash left unused at the end of a trip

Ensuring adequate funds

At point of sale the smartphone can indicate to the traveler how close they are to their credit limit (or how much is left in the account, according to the payment method). If they see they are close to their limit, they can switch to a different payment method. It would even be possible for the traveler to send an electronic request to their employer for an increase to their credit limit.

Multiple limited-use cards

Travelers from professional services firms, who work on a project basis for each client, could have multiple limited-use virtual cards on their cell phones, one for each project. It would be another way to ensure each expense is assigned accurately.

Different currencies

It would be easier to equip travelers with virtual cards in different currencies, thus reducing interchange and conversion fees. However, the traveler's treasury department would need to set up multiple bank accounts to ensure there are sufficient funds to settle in each nominated currency.

Different payment methods for different parts of the bill

It may be possible to use different payment methods from the mobile wallet to pay for different parts of the same bill. One example would be a hotel stay, where the traveler has booked a standard room but elected to upgrade at check-in. The traveler could pay for the standard room rate using their mobile corporate card but pay for the upgrade with a mobile personal card or even with points from a loyalty card.

This is a perfect example of how all parties can benefit from mobile payment. Travelers have more flexibility to experience the service they want, employers avoid any additional cost while having happier travelers, and the preferred hotel that offered the upgrade gains better loyalty from its client.

Extending travel management to new areas of spend

Out-of-pocket payments

As discussed above, smaller items typically paid with cash will become more visible, leading to a better understanding of total cost per trip.

Public transport

One area that should gain greater visibility in particular is public transportation. Business travelers are sometimes deterred from using buses or trains because it is unclear where to buy tickets or how to pay for them. By paying with a cell phone, which also effectively becomes the ticket, the process becomes much easier. This reduces the likelihood of travelers unnecessarily using taxis, thus saving costs and reducing environmental impact. It will also benefit travelers by making it easier for them to reclaim public transport expenses because the transaction can flow into the mobile expense reporting tool.

Airline ancillary fees

It is a well-documented frustration of travel managers that fees paid by travelers at the airport for ancillary services such as extra baggage cannot easily be tied to the original ticket purchase. Mobile payment could be the answer. One way it could work would be to append the traveler's employee number both to their lodge card payment when they book the flight and to a one-time virtual card number for possible use at the airport. When the traveler pays for the extra bag with the virtual card number, the phone will cross-check with the traveler's mobile itinerary to identify a flight booked for the same time. The traveler can then confirm this is the correct flight for which the charge is being made and the match will be made with the lodge card payment for the ticket.

Meeting room payment

Another idea is to place NFC readers next to meeting rooms in hotels, effectively making the phone an electronic key to unlock the door of the room. Once again, this would simplify and capture payment for the traveler, and improve data for the travel manager:

if the traveler waves the phone over the NFC reader at the start of the meeting and again on departure, the travel manager can understand better how long employees are spending in meeting rooms.

Security – traveler tracking

It is possible today to keep track of employees' whereabouts through the use of GPS on their mobile devices. However, other than for destinations with a high security risk, this application is generally avoided because of understandable data privacy concerns. Mobile payment could emerge as a less intrusive alternative.

A small number of companies are already using data from plastic corporate cards as a secondary or tertiary traveler tracking mechanism. They can see where travelers have been by tracing which merchants have received payments from them. However, the current process has its disadvantages. In extremis, an employer could ask its card issuer to provide transaction data that would be almost real-time, but routinely, transactions do not appear in corporate clients' card reporting tools for 24-48 hours.

Using mobile payment, a card transaction can appear instantly in the traveler's expense reporting system. Combined with GPS, the location of the vendor can also be identified precisely in cases of potential confusion over, for example, two similarly named hotels in close proximity. There could be fewer data protection sensitivities about tracking travelers in this way because it applies only to corporate card transactions made when a traveler is "on duty". In contrast, straightforward GPS tracking could follow the traveler even when "off duty", which can seem more of a violation of privacy.

Value
Will Mobile Payment Strengthen or Weaken Managed Travel Programs?

Answer: both!

The survey of ACTE travel buyers showed that 18% think mobile payment will make travel management easier and 23% that that it will make travel management harder, while 22% think it will stay the same (the rest don't know).

It is perhaps this last group with which expert interviewees disagree most vigorously. Whatever one may think of mobile payment, things will not stay the same. "Mobile payment will make it easier to act outside travel policy, and it will also make it easier to act inside travel policy," says Torsten Kriedt, Vice-President Product Planning and Intelligence for BCD Travel. This statement is not self-contradictory. All the experts are convinced that travelers will embrace mobile payment because is so easy and simple to use. Therefore corporations have a choice. If they integrate mobile payment, by allowing mobile wallets on corporate smartphones and linking payments to an expense management system, then travelers will naturally gravitate towards a company-managed process that provides so many conveniences for them.

If, on the other hand, companies refuse to integrate mobile payment, travelers will simply turn to their personal smartphones to make payments instead. And since booking travel via a cell phone becomes even easier if the same device can be used to pay for the trip, not only will opportunities be lost, but even more purchases will be non-compliant, and the data will not be captured either.

The consumerization of business travelers

Much has been written over the past 18 months about the so-called "consumerization" of business travelers. According to this theory, younger employees in particular have a less compliant attitude. Perhaps even more importantly, they have great aptitude with mobile tools that enables them to make independent purchasing decisions thanks to superior search capabilities, peer recommendations and accurate targeting by suppliers.

The theory continues that travelers are using their new-found abilities not to deviate from policy for personal gain, but simply because they want to buy smarter, which is in the interest of both employee and employer. "Many companies are starting to embrace the concept of not controlling the choice of travelers, but helping them to make the best choice," says Nancy Callahan, Director of Product Development for Concur.

The link between mobile payment and consumerized travel management

Mobile payment is a prime example of consumerized travel management, which succeeds by deploying carrots, not sticks. As numerous applications suggested in the previous section prove, mobile payment makes essential travel processes like payment easier and more flexible for travelers; but by offering all of this within the envelope of the travel program, it strengthens travel management too. "If the app is helping the traveler, it will help the organization as well," says Kurt Schmid, Chief Executive Officer of NEXPERTS, a mobile payment solutions provider. "Expense reports are necessary, so if you can provide them in a more consumer-friendly way, that is ideal." Mobile payment may place a policy compliance manager in the pocket of every traveler, but it is packaged so attractively that travelers do not even realize.
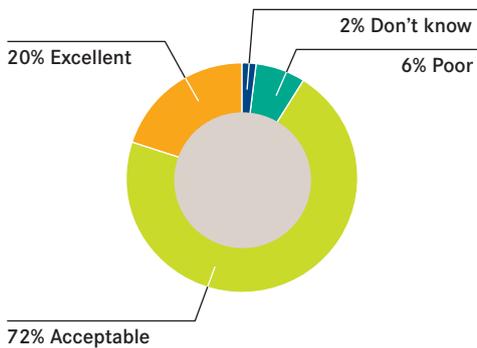
Security
Is Mobile Payment Secure?

The survey of ACTE respondents suggests this topic is an area of significant concern for travel managers.

In general, travel managers are satisfied with the security of today's plastic corporate payment cards:

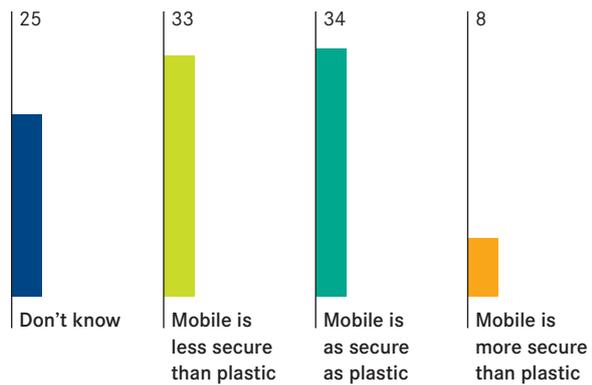### 8 How do you rate the security of today's plastic corporate payment cards?
Total: 100%

20% Excellent

2% Don't know

6% Poor

72% Acceptable

They are considerably less confident about mobile payment:

9 What is your perception of the security of mobile payment compared of plastic cards?
Total: 100%

25	33	34	8
Don't know	Mobile is less secure than plastic	Mobile is as secure as plastic	Mobile is more secure than plastic

Not for the first time in this white paper, the situation identified by the expert interviewees contradicts the perceptions of the travel managers. The experts argue that mobile is more secure than plastic, not less.

Why mobile payment is secure

NFC is secure

It is very difficult to interfere with an NFC communication, because the radio signal between a phone and an NFC reader only extends 3-5cm and the transaction is exceptionally fast. It would be almost impossible to interpose an unofficial reader into this space without detection. Furthermore, as with chip and PIN plastic payment cards, it is possible to authorize payment only by confirmation with a PIN number. And, unlike with plastic, there is no possibility of a merchant retiring to a back room with a customer's phone to carry out the transaction.

Blocking cards

When travelers lose a real wallet, they have to call each of their card issuers to put a block on their cards. With a mobile wallet, all payment methods can be blocked with one call. Electronic cash can also be blocked, whereas stolen real cash is lost for ever.

Limited-use cards

Limited-use virtual cards are especially safe because they can be designated for use one time only with one specified merchant, and the value of the transaction can be limited, or even fixed for a specified amount. They are therefore useless to thieves.

Smarter detection of abnormal behavior

Mobile payment enables travelers to monitor card balances on their phones, so in the unlikely event of fraudulent misuse, they will detect the problem much faster than when they have to wait for a monthly statement on their plastic cards. There are also possibilities in a mobile wallet being able to "talk" to the phone owner's mobile itinerary. If the wallet detects an abnormal payment made in, for example, the Caribbean, the wallet can ask the itinerary if the traveler really is in the Caribbean. If the traveler is not there, an alert can be created and the payment method blocked.

Are there any genuine grounds for concern about security?

At present, mobile payment looks likely to prove more secure than plastic. However, these are early days, and both fraud and fraud prevention are constantly evolving. One possible area of concern is not with the payment process in particular but with cell phone hacking in general. For example, are cell phones completely immune to Trojan horses? Considerable work is going on to ensure adequate encryption of stored cell phone card numbers to prevent this becoming a problem.
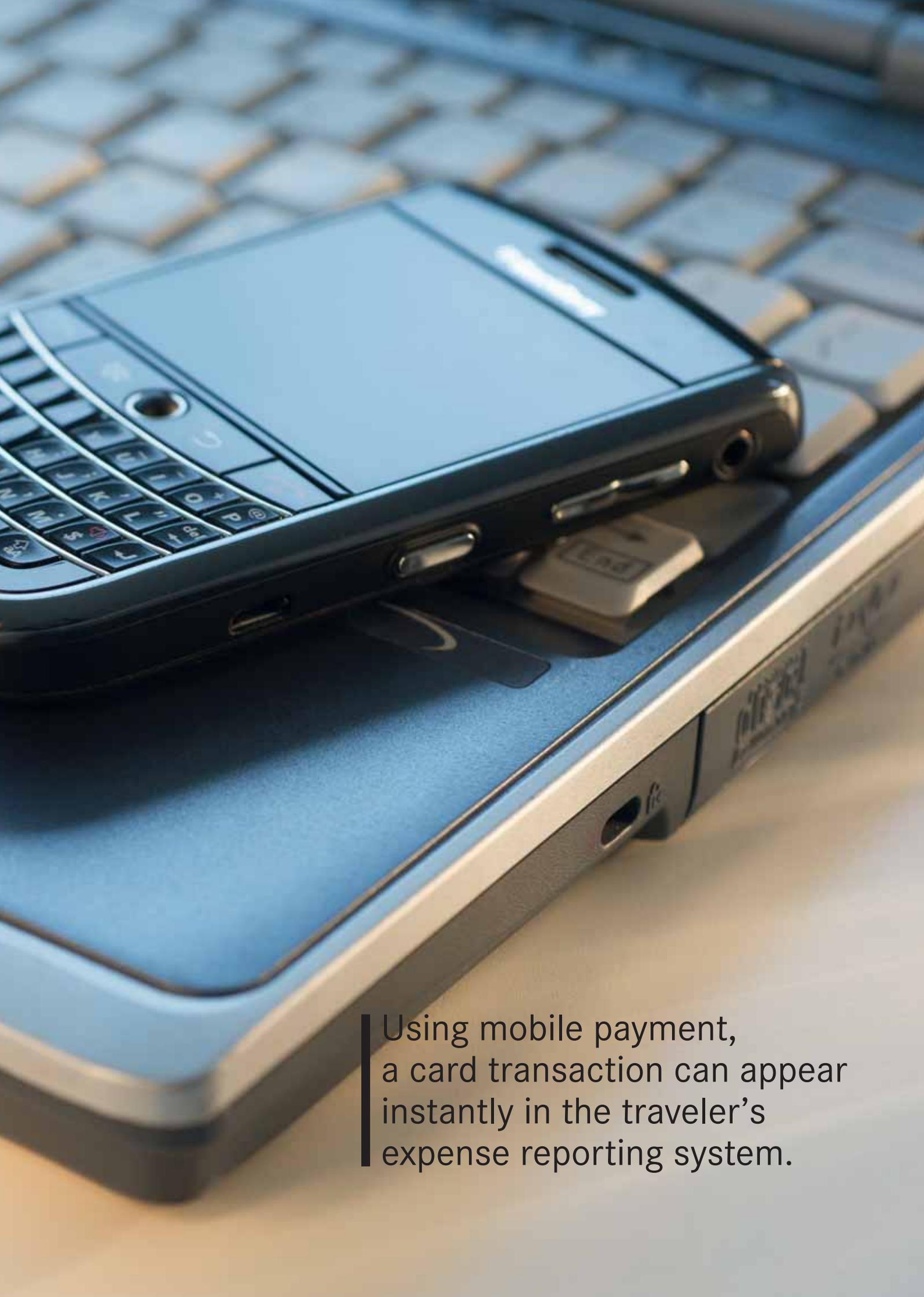
Using mobile payment,
a card transaction can appear
instantly in the traveler's
expense reporting system.

Future
Next Steps for Mobile Payment

The evolution of corporate mobile payment depends primarily on three factors:
> Adoption of NFC-enabled phones
> Adoption of NFC readers by merchants
> Introduction of mobile payment apps aimed at the corporate traveler

NFC-enabled phones
Deloitte predicts that shipments of NFC-enabled smartphones, tablets and eReaders will double to almost 200 million in 2012. NEXPERTS predicts 30% of handsets in use in 2014 will be NFC-enabled in certain markets, a figure that will rise to 50% by 2015. In both cases, the percentage will be higher for corporate travelers because they are early adopters of new technology.

Merchants' NFC readers
This appears to be the biggest obstacle to progress. According to an article on pcmag.com ("Will 2012 Be the Year of Mobile Payments? No", 26 September 2011), Visa estimates only 2% of all merchant locations in the United States had NFC readers installed as of mid-2011. Deloitte says that although virtually all new retail point-of-sale terminals can interact with NFC-enabled mobile devices, retailers only replace their terminals every seven to ten years on average.

However, this is one technology where the US lags some other parts of the world. Contactless payment is most prevalent in Asia, most notably Japan and South Korea.

Corporate apps
So far, almost all mobile payment apps have focused on consumer rather than business use. However, many payment issuers, expense management providers and other companies that specialize in corporate travel are developing products in this area. To take one example of likely timetables, AirPlus International, co-producer of this white paper, produced a prototype mobile payment corporate card in early 2012.

Outlook
A lack of NFC-reading merchant terminals appears the biggest barrier to progress, but merchants may find they need to adopt the technology in response to consumer pressure. Leaving mobile payment to one side, card issuers are already issuing contactless credit and debit cards that can also make payments via NFC. Deloitte has calculated that 130 million contactless payment cards were in circulation by the end of 2011 and that this number will increase to 200 million by the end of 2012.

The consultancy firm Juniper estimates there will be USD 50 billion of mobile NFC-enabled payments by 2014. The experts interviewed for this white paper believe the consumer market will start to adopt mobile payment during 2012, with the corporate market following approximately 12 months behind, with accelerated adoption from 2014 onwards.

One of the main barriers will be overcoming employer concerns about security. The survey results discussed in the previous section give an indication of that challenge. Any mobile payment process that travel managers propose for introduction among travelers is likely to be delayed by extensive testing by their company's security department.
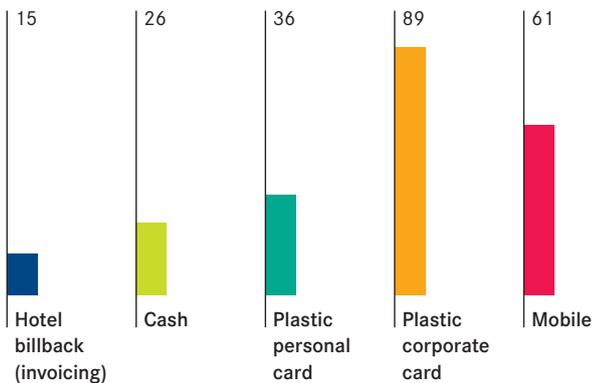
What will happen to plastic cards?

ACTE buyer members were asked which payment methods they believe their travelers will be using in five years.

10 Which of the following payment methods do you think travelers in your organization will be using during business trips five years from now? Please select all that apply.
In %

Hotel billback (invoicing)	Cash	Plastic personal card	Plastic corporate card	Mobile
15	26	36	89	61

The results clearly show that buyers fully expect travelers still to be carrying plastic cards. On this point, the experts agree. Plastic will continue to be important, if only for reassurance purposes and as a back-up in case the traveler's phone fails. Some experts think plastic may disappear eventually, but only once consumers are fully comfortable with mobile payment and all merchants are equipped with NFC terminals. No one is prepared to put a date on that figure, but it is likely to be several years, if at all, before plastic cards disappear from travelers' wallets and purses.

Time will tell!