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Mobile expense Management..

Integrating and managing mobile communications costs for savings and improved organizational decision-making

Executive Summary

By any measure, the workplace is becoming increasingly mobile — and not just in a telework, office-or-home way. More broadly, mobility is defined as computing that takes place anywhere at any time using smartphones and tablets, devices characterized by touch screens and wireless connectivity. Notebooks too (particularly super-lightweight ultrabooks)
are a growing part of the mobility picture.

Regardless of the device used, mobile-enabled workers are likely to be more productive and get more job satisfaction than those tethered to their cubicles.

Mobility costs are among the fastest-growing IT expenses that many organizations face. This is because users from the executive suite to the field are demanding the ability to do real work in a mobile fashion. While mobile work can be accomplished on inexpensive devices, mobility is anything but cheap.

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In fact, mobile devices often are purchased in addition to the traditional PCs organizations provide employees. Many enterprises counter device costs by instituting bring- your-own-device (BYOD) policies. But that doesn't free an organization from the costs of administration and application development that an influx of personal mobile devices brings.One telling statistic: Cisco estimates that in 2012 alone, global mobile data traffic grew by 70 percent. It now stands at many multiples of the total global Internet traffic in 2000. The average smartphone uses 342 megabytes per month, nearly double from a year ago. Clearly, organizations need to control this fast-growing expense. Carrier bills represent the lion's share of mobility expenses, given that a $200 device over its lifetime may cost an organization only $10 or $12 per month, but eat up $50, $60, $75 or more in monthly wireless charges.Organizations can't escape the mobility movement. But they can control its costs. In fact, mobile expense management (MEM) is spawning its own ecosystem of techniques and tools designed to let organizations see the full extent of their mobility spending, and ultimately control it. MEM is similar to telecom expense management (TEM), but differs in that its specialized focus is mobile communications, whereas TEM encompasses wireless and wireline communications. Mobile communications' growing ubiquity in the workplace may drive greater advances in MEM solutions over TEM solutions as time goes on. Mobile expense management calls for a three-step strategy:

Gain a complete picture of organizational mobility costs, including hardware, carrier services, administration and app development.

Use a tool or service that provides fine-grained visibility into all costs to enable the organization to understand and analyze its spending.

Analyze usage to reduce costs through careful wireless use policies, negotiation with carriers, and application and network optimization to shrink data plans.

Above all, build flexibility and continuous review into any mobility expense management program because device technology, wireless pricing and application behavior change constantly.

Mobile deployments have a way of layering on costs, which means that in the absence of a comprehensive and enterprisewide expense management approach, many costs may be hidden and therefore beyond organizational control. If all the enterprise sees is a single block of dollars, opportunities for savings within the categories of the gross spending figure will be missed.

Carrier costs provide a good case in point. Within a single user account, the enterprise might be paying for voice minutes (possibly including international charges), data, messaging and roaming. By viewing these elements separately, an organization can fine-tune policies and rein in users who, for example, may be using expensive roaming for data when they could wait until they're in a Wi-Fi zone two blocks away.

Digging out extra costs

Cutting costs requires some creative thinking. With data use, the IT department can discover paths to reducing costs by viewing data flow from an application standpoint. By design, some applications require much more data exchange than others.

Dumping data-intensive applications in favor of more efficient ones can trim a lot of data usage and, as a result, lessen mobile wireless costs. For instance, designing apps so that they work offline can reduce data costs by having users hold off on syncing their devices until they're within Wi-Fi range or plugged in.
It is important to keep in mind that wireless expenses exist within a larger framework of total mobility spending. Aside from direct carrier charges, organizations find that administrative costs rise when workers must spend time sorting through carrier bill patterns.

Device provisioning – or a lack of it – is another area to look at. Device costs rise when a greater number of users demand smartphones in the absence of a BYOD policy or when the organization fails to limit enterprise-provided smartphones to users who really need them. Still more costs arise from securing and provisioning of devices, as well as from maintaining enterprise app sites for user self-service.

Another consideration is that mobility costs are often shared among different departments within an organization depending on their respective silos. For example, the IT team may bear device and application costs, while facilities or accounting departments handle wireless bills.

Clearly, there are a lot of areas that need to be examined when it comes to building a holistic view of mobile expense. But
with the proper tools, teams can organize all mobility-related costs into a single dashboard. Presenting total costs in such a way will let organizations begin a detailed, cause-and-effect analysis of mobile expenses, enabling more than a simple reaction to mobile growth.

Because so many variables within a mobility strategy change constantly (for example, device specifications and carrier rates), expense management requires continuous optimizing of costs and services, not simply one-time cuts. Spelling out the whole mobility picture, in which every cost is visible, is the first step to managing expenses. It also enables the IT group to more carefully allocate expenses to the proper user groups or departments, thereby enlisting more support for expense management.

Actively Manage Expenses

If visibility is the first step in a mobile expense management strategy and organizing for effective analysis the second, then the third step — the overarching goal, really — is active management of expenses.

For many organizations, active management begins with the carriers. Individual consumers are more or less at the mercy of the carriers. While the market is highly competitive, lock-in setups make it difficult for individuals to control their mobility plans. Business and government organizations (especially those that operate in multiple locations) have much greater ability to negotiate with carriers thanks to the larger business volume they offer.

One place to begin active management is with carrier agreements. For example, rather than buy 1,000 minutes a month for 1,000 people, start at one million total minutes per month. Do the same for SMS messaging and data.

Monitor actual use of services to gain a full understanding of the enterprise's real requirements. If usage is lower than estimated, the negotiated carrier rate may be higher than necessary, but the organization will realize a net savings from lower volume.

If usage is higher than estimated, a lower rate can be negotiated. Rates may rise in accordance with use, but per-unit cost will be lower than if the organization simply paid without a holistic view of use. That represents cost avoidance.

Avoid Excessive BYOD Costs

Reimbursing employees for telecom costs under BYOD mobility arrangements means an enterprise is paying retail — or more — per user. One recent study by Nucleus Research of Boston found that by negotiating bulk rates for voice, message and data services, organizations could reduce per-user costs by $80 to $90 per month, achieving actual per-user costs closer to $65 per month (at 2013 rates).

Assuming users spend at least a portion of their allocations on personal use, organizations may find that a flat $40 per-month, per-user reimbursement is the most economical system, in part because it saves the overhead costs of invoice submission, verification and processing of expense reports. That cost alone can be as high as $20 per user, per month, according to Nucleus Research of Boston.

What about situations in which some workers participate in BYOD and others have enterprise-supplied devices? Organizations need ways to simplify budgeting and get a better handle on reimbursable expenses to ensure that actual enterprise expenses can be measured and forecast.

An organization might reimburse any combination of voice, international, roaming, text message and data download charges, for instance. Another option is to pay a certain percentage for each of those categories rather than excluding some.

In many enterprises, policies will vary by user or group. In those situations, consider available tools (such as software packages) that import wireless carrier invoices, intelligently parse them into management reports and generate reimbursements based on the policies associated with each line item on an invoice.

Beyond direct telecom expenses (which offer the most obvious paths to cost control and regulation through use policies and carrier negotiation), don't overlook the hardware side. A total expense management solution, whether acquired as software or as an outsourced service, is a worthwhile investment. Large organizations report savings in the tens of millions of dollars per year, representing triple-digit returns on their investments in TEM and MEM solutions.

When enterprises start with the goal of reducing costs, then ensure full visibility into the elements of costs, they put themselves in a greater position to optimize both mobility policies and costs to achieve greater efficiency. Above all, given constantly changing costs and technologies, an organization's mobility strategy should be one of continuous monitoring rather than set-and-forget.

Holistic Equals Total Inventory View

Another way to guarantee a holistic view is to ensure that the organization has a grasp on its inventory of mobility cost drivers. As people move in and out of an enterprise (or change jobs within it), it's easy to lose track of mobility assets. In gaining a holistic view, don't overlook anything. Whether using a full-range mobile device management system or a more specialized telecommunications expense management (TEM) product, the goal should be an all-encompassing view.

Look for a technology solution that encompasses all of the wireless plans, and all of their subcomponents, in all organizational locations. But for a total view that yields the entire range of management options, the solution also should include an inventory of all mobile devices used by employees and provisioned by the organization, as well as network assets that enable mobility, such as wireless LANs and associated data center equipment.

How MEM Services Can Help

Do-or-buy calculus can apply to an organization's mobile expense management decision. One argument in favor of outsourcing MEM stems from the number of elements that must be accounted for in order to obtain the total mobility picture. Patterns of devices, data, voice minutes and messages vary according to the carrier, location and habits of individual users.

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In many organizations, authority over those elements is fragmented: Facilities own telecom, business units determine mobility policies and user profiles, and the IT department owns the wireless and application delivery infrastructure. Having a managed services provider handle MEM gives everyone a single point of contact for information on costs and trends.

By the same token, if control of the mobility program falls under the auspices of the IT group, expense management represents a discrete and specialized activity. An organization may decide to hand off MEM to a service provider so that critical IT staff can concentrate on more strategic activities, such as application development or data center optimization.

Some providers offer an á la carte selection of MEM services to customers, including:

Administration of wireless service contracts, which ensures carriers and the purchasing organization both abide by applicable terms and conditions

Inventory management of mobility program components, such as devices, application licenses and wireless contracts

Optimization of rate plans, which ensures the most efficient combination of voice, data and message rates for each working group or individual

Management reporting can show any number of statistics on usage or software licensing by user, device, workgroup or department

Carrier invoice auditing, a tedious but vital component in cost control given carriers' constantly changing rates and plans, and the random errors that occur in the volumes of invoices issued each month

Consider MeM a Part of MDM

A high rate of change characterizes nearly every aspect of mobility. Device manufacturers constantly strive to outdo one another with new features and capabilities, and within each device family, there are frequent updates to operating systems and applications.

BYOD brings the potential for a constant stream of requests to connect a variety of devices onto an enterprise's network. The carrier environment also brings a constant stream of new services, plans and rates, so much so that today's great deal often becomes next year's albatross. That means mobile device management and mobile expense management are highly interrelated. An organization that chooses to outsource specific expense items also should consider offloading the total cost management of mobility — an approach that views mobile device management primarily as a cost control mechanism, given that the administrative work of managing the device environment itself is a major mobility cost. In such a scenario, the vendor providing total expense management performs both MDM and MEM functions.

MEM service providers also may manage activities ancillary to a mobility program, including procurement functions such as ordering and kitting of mobile devices, mediation of billing disputes and even bill payment. Providers also may handle the disposal or recycling of devices when they reach their end of life, ensuring all data is wiped completely.

Finally, organizations can use MEM service vendors to outsource help desk operations. Often, as mobility deployments increase, so do help desk and support costs. Early mobility adopters typically are thoroughly familiar with their own devices and apps, but an unfamiliar interface can bewilder some users.

One advantage a managed services provider brings is a proprietary — but finely developed — technology that joins together all of the MEM variables in one interface. The vendor's solution also will likely incorporate data from many more carriers than a given organization is likely to need. That can give an organization (or the vendor negotiating on its behalf) greater leverage with carriers than otherwise might be the case.

Establish a Wireless Use Policy

It may seem obvious, but without a carefully crafted use policy, an enterprise stands little chance of gaining control over its mobile expenses. To users, wireless services may seem like a sort of boundless utility. An organization's goal should be to enable full mobile productivity — not excessive usage — with users paying for any personal use unrelated to work.

By enacting a well-thought-out wireless use policy, an organization can:

- Achieve a greater return on investment through the use of a MEM/TEM solution
- Strengthen data and application security
- Spell out objective criteria for taking action (such as denying network access or remotely wiping a device)
- Foster a sensible BYOD program (for example, no PlayStations permitted on the enterprise network)

The proliferation of smart devices in an increasingly mobile work environment makes the need for a wireless use policy all the more urgent. Policies that worked well in telework or telecommuting scenarios, where employees work from home offices on hard-wired virtual private networks (VPNs), simply are inadequate in today's era of mobility.

Today, workers who do their jobs from home may not bother with Ethernet connections and may simply use smartphones or tablets as if they were working in the field. A comprehensive mobile wireless use policy can help an enterprise control more than just costs, it can also enhance cybersecurity and increase employee productivity by giving the IT team greater control over what devices are used, and how.

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To create a wireless use policy, begin with this eight-step approach:

1. Organize a steering committee to ensure that all parties with a stake in the policy, and in mobility generally, are heard. At a minimum, such a committee should include members from the IT department, the finance department, various business units and human resources.

2. Set goals for the policy. This should be the steering committee's first order of business. For example, a goal might be to ensure that each type of user in the organization has the appropriate mobility tools for the job. Goals can also cover more technical points, such as ensuring that outsiders or cybercriminals cannot access or steal enterprise data from mobile devices.

3. Narrow the details, such as the types of devices that will be used, who will be given a device by the enterprise and who will be covered under BYOD. At this step, the HR and finance teams may play a larger role. The IT group can provide guidance on what operating systems and third-party apps will be permitted on devices, as well as what security methodology will be applied. Equally important is how the mobile devices will interact with the network.

4. Keep an eye on costs using one of several financial models. The easiest to administer (but the most difficult to control, and likely the most expensive) is for the organization to hand out devices and plans and pay for everything. A second model reimburses employee expense reports. But this, too, can be costly in terms of actual wireless expenses and the overhead costs of administering such a system. A third model is to give users a fixed monthly amount to spend as they wish on a wireless plan. There is also the question of who pays for the device. It may be most economical for workers to purchase their own devices through the organization so that everyone benefits from volume pricing. Be sure employees know who will pay for what.

5. consider liabilities when staff handle financial data, enterprise intellectual property or personally identifiable information on their device. Employees also may have access to data specific to the organization or mission, such as medical information or customer information. Each type of data may be subject to specific laws or regulations.
By the same token, an organization must be careful about handling users' data on personal devices that are also used for work. The enterprise also must consider whether to include prohibited data uses, such as visiting or downloading from gaming or other out-of-bounds sites, in the wireless use policy.

6. Don't neglect security when considering liabilities. All bets are off unless a comprehensive set of policies and procedures is established for physical and logical device security. Know in advance what actions or events will trigger a remote wipe, for example. This takes some work because the IT team should avoid locking down devices so thoroughly that no one will want to use them. Build security through a combination of technologies, including sandboxing applications and data on devices, using mobile VPNs and controlling what data will be stored on devices.

7. Inform staff that a mobile wireless policy has been established, and make sure they understand what's in it. With any new policy, it is advisable to test how well it works with devices and applications from a sample of users from each department or work group.

8. Be flexible and ready to adjust a policy as problems or challenges arise. Have a change control mechanism in place to act on feedback from the steering group or to incorporate technology and wireless plan changes from vendors. Policies should be reviewed annually, at a minimum, and employees should be given a deadline for accepting any policy changes.

Who Should Receive a Device, and How?

This may seem like an obvious question, but the answer isn't necessarily "everyone." Regardless of how ubiquitous smartphones and tablets have become, organizations must have a business purpose for issuing them to workers.
The type of work an employee performs should dictate the device he or she receives. Knowledge or mission-specific workers may need a full-featured tablet or smartphone and a voice/text/data plan based on what they do and where they go. For example, the IT department may have implemented unified communications and a social media overlay for professional or technical workers who can't get by with a simple flip-phone.
On the other hand, delivery employees and factory or warehouse workers may need to communicate wirelessly but would be better served with rugged push-to-talk phones and voice-only or voice and text plans.
Consider using a reseller to distribute devices to employees. Many offer value-added services — including device testing, installation of application imaging, accessory bundling and even etching or imprinting devices with an organizational logo and serial number — that will save money in the long run.

Getting Started: Inventory Plan Analysis

You can't control what you can't measure. This underlying principle of quality management can also be applied to expenses. Therefore, the starting point for proactive control of mobile expenses is a complete inventory of what the organization

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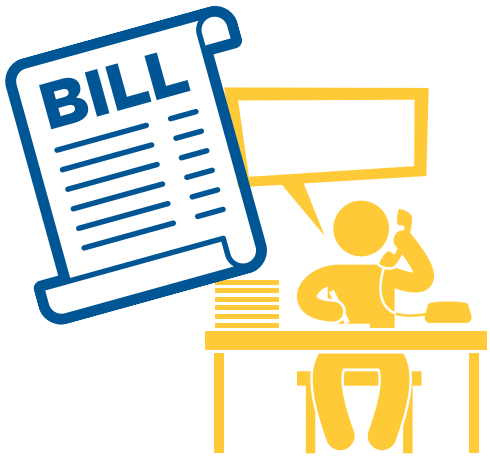
is spending. Detailed auditing of wireless carrier bills is part of the eventual cost optimization program. But to get the most out of auditing and cost control activities, the enterprise must apply them to all spending.

With the variety of tools available today, obtaining an inventory doesn't have to be done manually. If it is, it's likely that cost elements will be missed. In fact, organizations with more than a few dozen employees or with multiple locations may receive carrier invoices totalling hundreds of pages from each carrier. Obtaining an inventory will require an electronic solution.

As a repository of constantly changing information, rather than a static file, the central gathering point for wireless expenses should offer multiple views. For example, the IT or finance departments will want the ability to view expenses by user, by type of service, by carrier or by device, and they may want to view such categories over time.

To analyze current expenses, a total inventory should be matched to a dashboard that provides transparency into total mobility spending. A comprehensive solution can take that a step further, adding filters based on policy.



For example, if roaming or international calls for a particular user are not reimbursed, there's no point in monitoring such expenses. Conversely, if a user or group is running up high but nonreimbursable expenses, the data can point to the reasons why. Many vendors offer their solutions in either customer-hosted, licensed versions or online as a service.

Armed with a comprehensive and flexible view of total expenses, an organization can begin the process of optimizing its wireless strategies while constantly pushing the cost reductions. Cutting back on underused services, negotiating better rates for popular ones, pooling user-group minutes or texts so that no single user ends up in the red — all of these are examples of the savings opportunities an inventory plan analysis can yield.

Comprehensive insight into an enterprise's mobility spending and its many components also provides information the organization can use to model future initiatives. Organizations
can estimate the telecom costs of new applications based on likely usage and the number of staff required.

Such information also helps with planning applications and network build-out. Because applications require data, the total cost of an app can be calculated — and not just development and run-time distribution costs.

The IT group can instruct developers to optimize mobile apps to minimize data transfer. Similarly, IT staff can determine what network caching and other optimization techniques will help to keep wireless data costs in check. Understanding usage and data volume patterns also can help with planning precisely where new campus wireless LANs should be built, and how robust they should be.

Inventory Management

"To plant a $10 tree, you need to dig a $100 hole," is a common expression, but what might be true for gardening doesn't transfer to the world of enterprise mobile computing. The least efficient thing an IT staff can do is tweak individual wireless devices. In the age of iTunes and vast application marts, most users are now comfortable with the idea of self-provisioning devices.That is why a growing number of organizations, both commercial and governmental, are setting up self-service portals — websites open only to employees, from which they may download and install the prescribed software set for their mobile devices.

As a practical matter, most enterprises use a combination of internally developed apps, mobile versions of enterprise or mission- and workgroup-related applications, and productivity apps for tasks such as note taking or contact management. IT staff can add apps from this last group to an organization's portal so that it's easier to monitor downloads and check updates to ensure security controls aren't violated.

Organizations of any size can request that resellers or other vendors develop and host customized portals, thereby offloading the work associated with the portal and making the costs more predictable — another way to optimize mobility expenses.

The portal may be connected to the mobile device management (MDM) system, which is the point of control for device policies on security, acceptable apps, device tracking and inventory. Along with serving applications, the portal should be set up to help users perform other administrative tasks associated with mobile devices, including:

- Posting help queries and generating trouble tickets if an in- warranty device fails (and a small number do fail prematurely)
- Wiping a device at end of life before it is returned
- Ordering new devices

Other cost control opportunities

Mobility can put an undue burden on the IT team when it's not properly planned. That's why policies concerning device types are so important. Even with BYOD, organizations must limit what they will support. Within a device category (especially with Android devices), the IT staff must specify the versions and brands that are acceptable. Otherwise, support costs will rise.

Continue to control costs by establishing user classes, based not on job title but on function. The number of classes should be sufficient to provide flexibility, but not so numerous that every user, in effect, becomes customized. By limiting the choice of acceptable devices, the organization can save money through volume discounts. Remember, too, that for every dazzling new smartphone or tablet unveiled, a half-dozen basic models exist that would work just fine for most workers. Many carriers' websites list very capable models that are free with a voice-data plan. It is also important to send clear policy messages to employees to avoid excessive spending and risk around a couple of problem areas:

I**nternational use:** If the organization has a policy regarding international use, employees must notify their supervisor, IT staff or a mobility manager before taking their device out of the country. It is the staffer's responsibility to understand what constitutes international use and to know and apply the organization's policy.

Accessories: Be clear about what accessories the enterprise will pay for. Automobile chargers from carrier accessory racks are expensive. Because of local laws concerning hands-free mobile phone use, an organization can avoid enormous liability risk by providing headsets (wired ones cost a fraction of what Bluetooth-enabled sets cost, with better functionality). Request that workers sign statements spelling out that they understand and will abide by no-texting and no-handheld talking laws while driving.

Invoice Solutions Do It All

- Provide dashboards for easy analysis
- Automate allocations
- Connect to accounts-payable systems
- Generate reports for analysis and business
- Intelligence purposes

Streamline the Invoice Process

Itemized phone bills have become the stuff of legend. Many subscribers are convinced that carriers stick small, random charges throughout their invoices where they won't be noticed. Whether that's true or not, the single greatest MEM opportunity lies in getting control over bills — what's in them, what is payable by the enterprise, what's negotiable with carriers, and eventually what process will be used to either pay the bill or reimburse the employee. Never forget that the carrier's goal is to maximize the average revenue per user.

The organization's job is to minimize the outlay per user. Once an enterprise optimizes its services and rates with carriers, the never-ending tasks of ingesting, verifying and paying invoices remain. Carriers themselves offer invoice management and TEM services, but when organizations use multiple carriers, that option can become quite complicated.

Mobility managers can make a clear case for taking a unified approach to handling carrier invoices. Here again, an ecosystem of invoice applications and service providers, many rooted in the wireline telecom era, exist to offer invoice solutions.

Such solutions basically ingest invoices and parse them into data elements in a database-driven engine that provides several services, including powering dashboards for invoice analysis, automating departmental allocations and feeding accounts-payable systems. They also generate reports for further analysis and business intelligence. Incidentally, carriers do make mistakes in the millions of lines of invoice information they generate each month. An invoice management solution should flag those mistakes, such as charges for services that aren't included in an individual plan, or itemized charges for unlimited services.

Enterprises should seek out a solution that, in effect, virtualizes the multiple formats and sheer volume of data contained in carrier invoices. The tool should organize invoices into custom views to enable tracking and analysis, as well as automate the administrative tasks of issuing checks or allocating costs to user groups within the organization.

Choose a solution that can be customized to suit an organization's workflow and use policies. By saving untold hours of accounting staff labor, this approach also reduces the cost per invoice while finding money in overcharges and other errors, and helps the organization to enforce service-level agreements with carriers. Such solutions are available as self-hosted, licensed software or as online, cloud-based services.

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How Does MDM Fit In?

Organizations deploying mobile strategies discover quickly the need for MDM capabilities. MDM functions as a repository for device inventory; for rules and policies governing provisioning, configuration and usage; and for device tracking, either wirelessly or when devices are plugged in for synchronization or app downloads.
The more sophisticated MDM packages include comprehensive mobile expense management modules, but telecom expense management packages don't often include MDM. Enterprises that have taken an MDM approach and now want to take a more aggressive stance on carrier wireless costs may be in luck. On the other hand, many TEM solutions include full wireline expense management capabilities, something MDM packages lack. The choice comes down to what legacy solutions are in place. For the long run, it will likely benefit an organization to migrate its telecom expense management to an MDM-oriented platform, simply because a combination of wireless and mobile devices appear to be defining the coming IT era.
Where landline telecom costs are concerned, the need for tracking and management will continue. However, the growth of Voice over IP, accompanied by network convergence, mean such packages have a more limited future.

AirWatch™ provides a complete Enterprise Mobility Management (EMM) solution. The solution enables you to quickly enroll devices in your environment, configure and update device settings over-the-air, securely distribute organizational content and resources and support personal devices accessing your network, email and apps.

The MobileIron Mobile IT platform secures and manages apps, docs, and devices for global organizations. It supports both organization-liable and individual-liable devices, offering true multi-OS management across the leading mobile OS platforms. MobileIron is available as both an on-premises system through the MobileIron VSP and a cloud service through the MobileIron Connected Cloud.

Apple® offers a substantial lineup of mobility products to meet your organization's needs — including the iPad®, iPhone®, iPod touch®, MacBook Air® and MacBook Pro® products. Apple's products offer easy, secure integration into existing environments while providing great productivity and ease of use to your workers.

Computrace®Complete™ by Absolute® Software allows you to centrally manage your IT assets within a single interface. Identify any computers that have gone missing, enforce software policies and maintain a fleet of optimally running devices. And in the event of loss or theft, Computrace Complete can help you recover your computer.

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