



Report

*Industry Research
from AOTMP*

Wireless Mobility Management: *Over 10,000 Decisions to Manage*

April 4, 2008

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“Wireless has grown from cell phones providing a convenient way to reach people that are out of the office to productivity tools that enhance our employees’ capabilities.”

Network Analyst
Financial Services

Executive Summary

Widespread adoption of wireless technology is creating pressures for enterprises to implement programs for wireless mobility management. The consumer market for wireless devices is strong and provides ready access to affordable devices. Employees are used to having discretion and control in selecting devices, plans, and Wireless Telecom Service Providers. Managers are often willing to ignore corporate policy to help equip new employees with wireless mobility devices or to meet the demands of employees that want the latest technology.

When employees make the decisions, there are more than 10,000 variations of things that need to be managed including: devices, operating systems, applications, service plans, and Wireless Telecom Service Providers. On average, enterprises support:

- 7.5 different devices
- 3 operating systems for wireless devices
- More than 4 applications for deployments of 4,000 + devices
- More than 3 Wireless Telecom Service Providers

Cost is the main driver for mobility management programs with 58% of enterprises seeking to reduce expenses. Enterprises that are seeking to reduce expenses need to understand that Telecom Service Providers have different business models for fixed and wireless services. Wireless Telecom Service Providers are governed by different regulations, and the revenue models for wireless and wireline services are different. Telecom Service Providers have different billing systems for these two areas as well.

Enterprises must also improve security, establish better international plans, improve the management of applications on wireless devices, and implement better controls for how devices are used. Enterprises are in the early stage of providing road warriors with access to corporate data and applications. New initiatives from RIM, Google (Android) and others hold promise for the integration of business applications to mobile devices. Declining costs will make wireless mobility applications more affordable for smaller deployments.

Before rolling out new applications, enterprises must create or update their corporate wireless mobility policies. AOTMP has found that **organizations are able to improve their results by 20% when they integrate policy governance with expense management.** In addition, **69% of enterprises indicate that inventory is the most important foundation to a program.**

This research explores top challenges to implementing an effective wireless mobility management program. Readers will learn the top strategic actions that enterprises are currently adopting for wireless mobility management. This report provides best practices for wireless mobility management. It also identifies the specific items that enterprises must track when creating an inventory. Readers will also learn the critical elements that must be included in a successful policy.



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“Knowledgeable people are needed to manage wireless/mobile devices and services. You need a professional who is a problem solver not a “gadget geek.” They must understand applications and the financials involved. They must also understand why policies are important and how they affect the business.”

**Network Engineer
Insurance Broker**

Table 1: AOTMP Performance Indicators Standards & Best Practices Profile

Performance indicators encompass key measures designed to ensure ongoing success in managing a wireless mobility program. Strategically designed performance indicators provide the ability to measure IT and telecom’s effectiveness across operational performance, financial performance and technical performance objectives relative to overall business requirements.

Central to AOTMP’s Performance Indicators Standards and Best Practices is methodology that promotes informed decision-making and success monitoring that will create intended results. The standards and best practices outline five performance indicator phases:

- I. Needs Assessment
 - II. Reconcile Business Needs & Strategy to IT and Telecom Activities
 - III. Establish Performance Indicators & Underlying Metrics
 - IV. Capture Metrics & Measure Performance Indicators
 - V. Interpret Performance Indicators & Drive Desired Results
- I. Needs Assessment
 - Evaluate business objectives
 - Evaluate operational objectives
 - Evaluate financial objectives
 - Evaluate technical objectives
 - II. Reconcile Business Objectives to IT and Telecom Activities
 - Evaluate current wireless mobility activities
 - Evaluate interdependencies
 - Map wireless mobility activities to business objectives
 - III. Establish Performance Indicators & Underlying Metrics
 - Identify performance indicators supporting business objectives
 - Determine underlying metrics supporting performance indicators
 - Validate relationship of performance indicators to business objectives
 - IV. Capture Metrics & Measure Performance Indicators
 - Determine reporting cycle
 - Collect and report metrics
 - Aggregate metrics into performance indicators
 - Establish communication plan for reporting performance indicators
 - V. Interpret Performance Indicators & Drive Desired Results
 - Evaluate performance indicators
 - Refine telecom activities to optimize metric performance and performance indicator results
 - Adjust metrics and performance indicators as business needs evolve



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“As the price of plans and devices go down, our company has found more ways to leverage wireless mobility technology. We’ve experienced a 2,333% growth in corporate liable devices since 2005.”

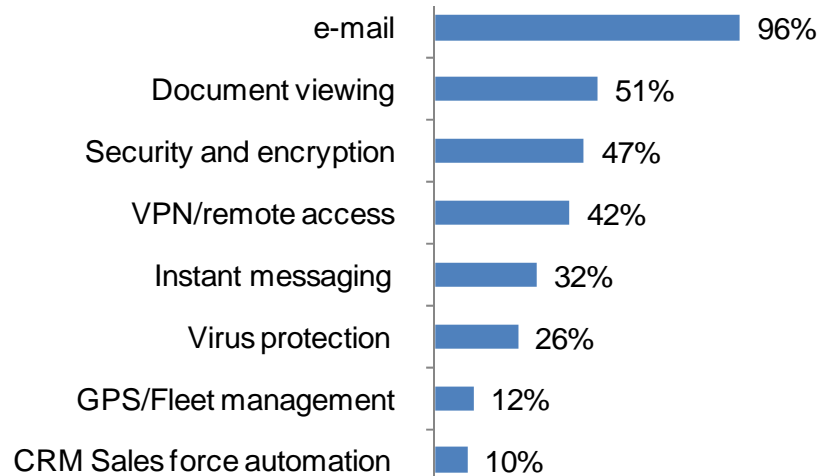
IT Director
Web Consumer
Information and Auto
Marketplace

Chapter One

Ready, Set, Mobilize

Competition is causing organizations to provide employees with phones and smart devices that will enable employees to be more responsive to customers and will increase worker productivity. The number of employees who are being equipped with sophisticated wireless devices with converged voice and data applications is rapidly increasing. In addition to voice communications, top applications include e-mail and document viewing.

Figure 1: Top Mobile Applications (Excluding Voice)

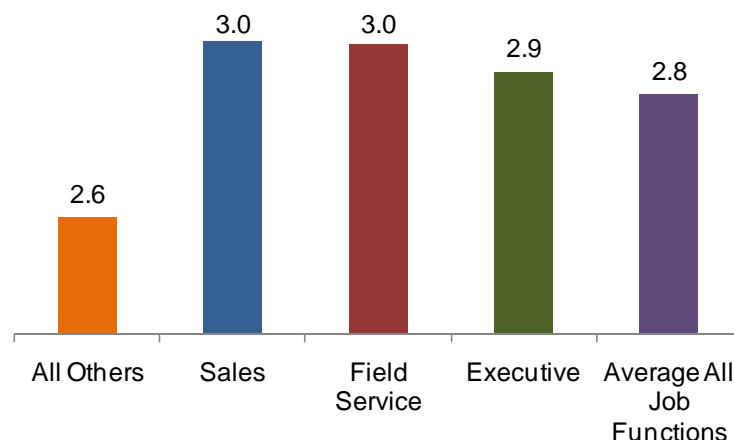


(Respondents selected three choices for this question)

Source: AOTMP, April 2008

Survey respondents also reported the use of task management applications such as bar code scanners on PDAs to send updates from the field for near real-time tracking of sales activity, service ticketing, time tracking, and corporate directories. On average, employees in sales and field service functions use three applications. Enterprises with deployments of 4,000 or more devices reported that their mobile workers use four or more applications. Wireless devices are becoming enterprise computing resources that require a secure, reliable, and supportable user experience.

Figure 2: Applications by Job Function





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“Management has a complete disregard for costs. Functionality is king. Our philosophy of connectivity anytime anyplace comes at a steep price.”

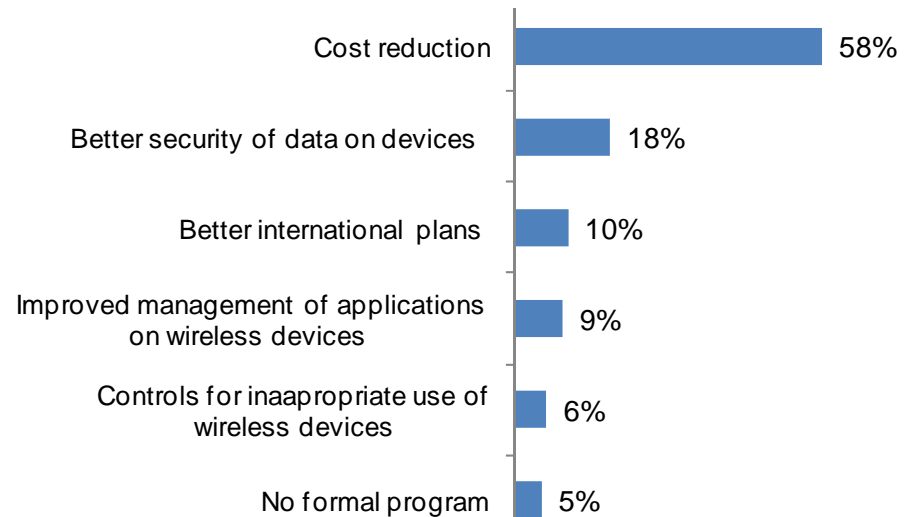
**Telecom Manager
Energy Utility**

“We have spending guidelines based on job functions and levels. The company pays an established amount for equipment and service plans. Above the threshold employees pay the excess amount. The challenge is dealing with multiple excuses as to why the company policy should not apply in particular circumstances.”

**VP IT & Telecom
Graphic Arts
Manufacturer**

Cost management is an important area of focus reported by 58% of enterprises, but these programs are starting to evolve into broader mobility management programs. Enterprises are starting to recognize that the devices must be managed just like computers. Security of the data on devices, applications management, and risk mitigation for inappropriate use of devices are important priorities for enterprises. International use of devices presents a different set of challenges with high roaming costs and the need for sourcing and optimization of Wireless Telecom Service Providers based on each country that employees visit.

Figure 3: Top Priorities for Enterprises

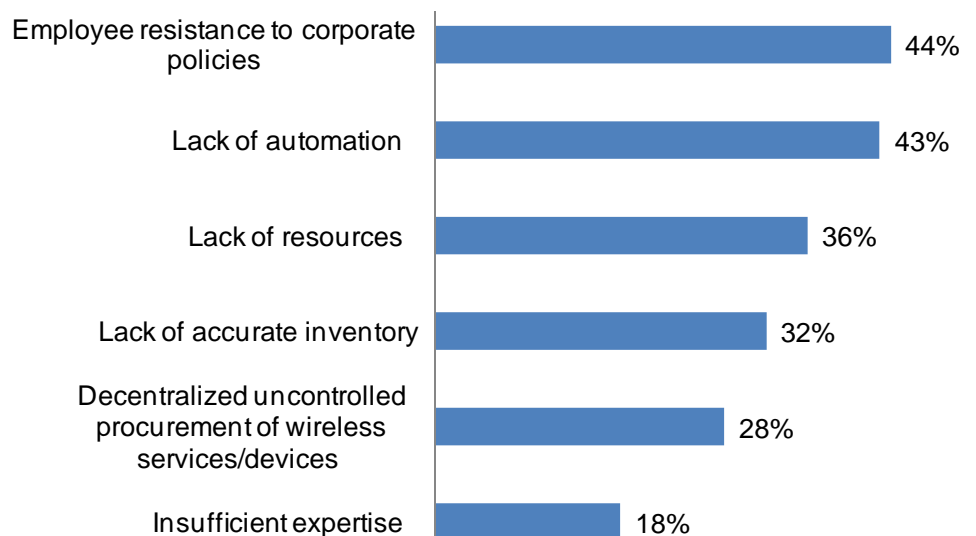


(Respondents selected three choices for this question)

Source: AOTMP, April 2008

One of the top challenges of managing wireless mobility is employee resistance to corporate policies. Wireless devices have strong consumer markets with affordable devices and ready access at stores in every city and major mall. Employees are used to having discretion and control in selecting devices, Wireless Telecom Service Providers, and plans.

Figure 4: Top Challenges to Managing Wireless Mobility



(Respondents selected three choices for this question)

Source: AOTMP, April 2008



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“Our biggest challenge is lack of insight into usage and fluctuating monthly costs. There is no one person who looks at wireless spending as a whole, so the lack of controls and insight significantly hinders our ability to manage the expenses.”

IT & Telecom Manager
Hotel & Lodging Chain

Multivariate statistical analysis provides insight into relationships between challenges and objectives. Table 2 shows 64% of enterprises that cite the top challenge as insufficient expertise indicate that their top objective is better international plans. In addition, 56% and 53% of enterprises that cite insufficient expertise also share common top objectives of reducing operational expenses through automation and risk mitigation. The order and groupings reflect relationships for each category.

Table 2: Relationships Between Challenges & Objectives

Top Challenges	Similarity*	Top Objectives
Insufficient expertise	64%	Better international plans
	56%	Reduction of operational expenses through automation of bill processing and reporting
	53%	Risk mitigation for misuse of wireless devices (inappropriate use of phone cameras, driving accidents, etc.)

Top Challenges	Similarity*	Top Objectives
Lack of accurate inventory	63%	Cost savings through reconciliation of devices to employee status to eliminate orphaned devices
	54%	Cost savings through audit of billing to contract

Top Challenges	Similarity*	Top Objectives
Employee resistance to corporate policies	64%	Controls for inappropriate use of wireless devices
Most devices/plans are not corporate liable they are employee liable		Savings through optimization of plans to monthly minutes used

Top Challenges	Similarity*	Top Objectives
Lack of automation	54%	Better end-point security for data on wireless devices
Lack of resources	54%	Better network security

Top Challenges	Similarity*	Top Objectives
Decentralized uncontrolled procurement of wireless devices and service plans.	54%	Improved management of applications for wireless devices

* Similarity refers to the degree of similarity with which the individual members of a statistical cluster responded



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“When developing a policy, be careful not to impair productivity in an attempt to create control. Too much control can cause employees to reject the policy and find ways around it. If an option provides someone an hour gain in productivity per month, how does that compare to the cost reduction?”

**Telecom Department
Manager
Facilities & Systems
Fast Food Retailer**

There are several additional patterns and trends that are revealed above. For example, enterprises that are seeking to reconcile devices with employee status to eliminate orphaned devices or to audit their billing indicate one of their top challenges is not having an accurate inventory. A key element of gaining control is getting an accurate inventory of the employees that have wireless services that are paid for or subsidized by the enterprise.

In addition, the trend in which wireless expense management is evolving into wireless mobility management is highlighted by the findings listed above. Enterprises that cited the challenges of lack of automation and lack of resources to manage wireless mobility are seeking to meet their top objectives of end-point and network security. Also, organizations that have decentralized uncontrolled procurement of wireless devices and service plans indicate that their top objective is improved management of application for wireless devices.

An important first step for most programs is to secure a clear mandate through gaining executive support for a formal program to manage wireless mobility. This mandate helps to overcome employee resistance to the program.

Table 3: AOTMP Standards & Best Practices for Creating & Managing Wireless Inventory

An inventory for wireless services and devices should include:

- An anchor to associate the service and device to an employee
- Tracking of employees that have agreed to the corporate policy
- Employee department (for chargeback allocations)
- Employee job function
- Employee job status
- The phone number for the device
- The Wireless Telecom Service Provider
- Plan activation and contract expiration date
- Tracking of corporate liable vs. employee liable contracts
- Service plan type (i.e., fixed monthly allotment of minutes, unlimited voice, data, pooled, etc.)
- Monthly cost
- Eligibility dates for subsidized devices
- Applications on the device (version and licenses)
- Countries where the employee uses the device

Some organizations also track the accessories that the employee has and the serial number for the device.

Chapter Two will explore best practices in creating a wireless mobility management policy focusing on policy development, expense management, device management, and end-point security.



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“We are switching all corporate Liability wireless services to private liability. This was a response by our attorneys and auditors to recent IRS rulings. It is a mess. We are hopeful that new legislation changes things.”

Associate Director of
Telecommunications
Large University

Employee Liable vs. Corporate Liable

With an employee liable plan, employees sign the contract and employees are responsible or liable for the expenses. Under corporate liable arrangements the service plan contracts are signed by the enterprise.

Chapter Two

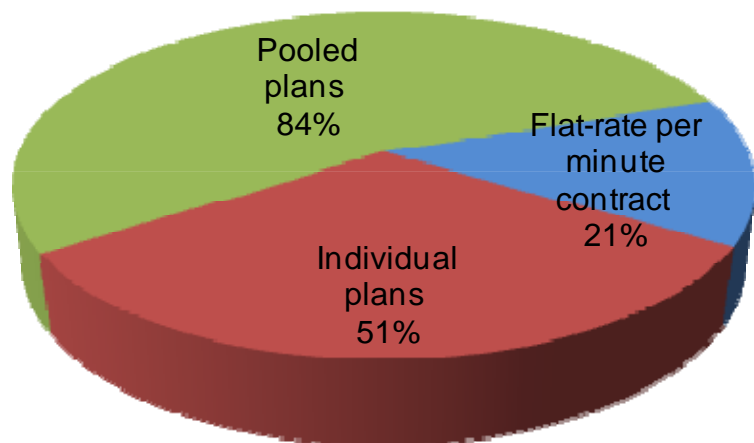
Corporate Liable vs. Employee Liable

Some organizations provide employees with a stipend and reimburse a fixed portion of the wireless service costs. This approach avoids the costs associated with actively managing a program and providing a help desk. A shortcoming to this approach is that it can drive undesired behavior. If employees believe they are close to using their monthly plan allotment, they may avoid answering calls.

Under employee liable plans, the employee signs the contract, and they are ultimately responsible for paying monthly service charges. With employee liable plans, the enterprise does not control the telephone numbers. If an employee leaves the organization, the employee can keep the phone number. Additionally, there is no clear title to the wireless devices. The organization cannot require employees that are leaving their jobs to return their devices. While some enterprises have ways to remove the data with Over-the-Air (OTA) technology, wiping the data from the device is an important concern. The issues of security for data on devices may impact an enterprise's decision regarding corporate and employee liable plans.

Enterprises can negotiate volume discounts by aggregating individual plans together under a pooled plan or under a plan that contains a low flat fee and flat-rate per minute pricing in the contract. Enterprises also benefit from having employees making calls on the same network. Most enterprises are managing a myriad of different service plans. The work effort to manage individual plans adds to the operational costs of supporting wireless mobility.

Figure 5: Wireless Service Contracts



(Respondents selected all that applied for this question)

Source: AOTMP, April 2008

Tax Considerations

When establishing a wireless mobility plan, it is important to understand how reimbursements impact employees. In the U.S., if personal use is allowed and an enterprise reimburses expenses or pays the service fees on an employee's wireless device, the payments represent taxable/reportable income. In the U.K., VAT tax credits can only be claimed for business use of wireless devices. While the specific



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“Our largest problem, is controlling the number of devices supported. For a period, we maintained only four devices (two cell phone models and two smart devices). They were assigned depending on job type and user preference (full keyboard vs. modified). But employees want us to support the latest devices. The costs of associated with short product cycles and continually replacing devices are too high.”

**Procurement Manager
Electric Utility**

requirements vary by country, generally enterprises must calculate percentages for the portion of the expenses that are business related and the portion that are for personal calls.

To withstand audits, employers must collect and retain monthly statements, and must document the amount of the expense, the time and date of each call, and the number dialed. It is also necessary to demonstrate that all calls had a business purpose. Each employee's taxable income from personal use of wireless services is calculated based on the Fair Market Value (FMV) of the device/service(s) attributable to personal use. The FMV is the amount that an individual would pay for the device/service(s), not necessarily what the enterprise paid for the device/service(s).

In the U.K., failure to maintain adequate documentation may result in lost VAT tax credits and deductions. In the U.S., it could lead to possible federal employment tax assessments for employers and federal income tax assessments for employees. Some employers have successfully applied a sampling approach to satisfy the documentation requirement for wireless services. Sampling is permitted by Treasury Regulation §1.274-5T(c)(3), provided an employer can demonstrate that the periods for which adequate records are maintained are representative of the use of the listed property for the year in question. Automation can also help by streamlining the tracking and by categorizing calls from friends and family phone numbers as personal calls.

Standards & Best Practices for Wireless Mobility Management

Mobility Policy and Governance

Mobility policy and governance addresses issues can arise from the blurring of the boundaries between personal and business use of wireless devices. An effective policy will align the enterprise's goals with employees' needs. The policy will define eligibility for devices and service plans.

It is best to form a mobility wireless task force that includes people outside of the team that administers the program. Some enterprises establish a program in phases. This allows employees to adjust from unrestrained choices to a more controlled environment without the backlash that comes from implementing radical changes.

Steps to Establish a Mobility Policy:

- Evaluate how employees in different departments and job functions currently use wireless services and mobility applications.
- Perform a cost benefit analysis for current applications and new technologies to determine which capabilities provide optimal benefits for employee productivity based on job role.
 - The cost benefit analysis should compare cost savings with productivity gains. Often the real issue is not productivity; it centers on personal preferences. Corporate culture may determine the outcome.
- Determine what regions/divisions are covered.
- Identify and group the mobile workforce into categories based on job roles that best fit the tasks and functions performed.



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“Allocating overage costs in a pooled plan can be challenging. For example, if Bob has a 450 minute allotment and he uses 760 minutes because of a one-time problem and Mary has a 450 allotment and she uses 230 minutes, who should pay the penalty? What if Bob goes on vacation on the 22nd and he does not use his phone again until the next billing cycle and Mary makes 29 phone calls between the 22nd and the 31st. When the pool goes over 90 minutes, who should pay the penalty? With some systems, Mary gets the overage, and Bob does not. We currently allocate the penalty to Bob, but we are having a debate to see if the penalty should be spread evenly.”

VP Wireless Services
Diversified Financial
Services Firm

- Business use and personal use should be clearly defined with acceptable cost deviance thresholds by dollar and percentages.
- The policy should define if employees can download ring tones, games, screen savers, and information subscriptions.
- If downloads are permitted, the policy should identify who pays for these items, and how they will pay for them.
- Define who owns the data on devices including those devices owned by employees that may have access to e-mail and other enterprise data.

A formal policy can help limit liability if cameras are used inappropriately or the device is used while driving. It can also promote compliance with local cell phone usage laws. Servers for wireless devices can enforce many policies for ongoing management of devices and policy. In some cases, cameras can be disabled, access to data can be limited, and users can be blocked from downloading software from websites.

- **Sourcing:** Enterprises must create an environment for Wireless Telecom Service Providers to compete on pricing, service quality, and reliability. Enterprises should consolidate multiple contracts with providers to get the benefits from volume purchases with a preferred provider. Enterprises must also balance consolidation efforts with a model that incorporates preferred and secondary providers.
- **Controls/Portals:** Enterprises must establish a process to enforce eligibility policies in a consistent manner. Service order portals can provide technology to automate and drive a consistent approach for service activation requests, approvals, service orders, and devices.

Expense Management

Enterprises that pay for unused minutes are paying a much higher NET Effective Cost Per Minute compared to organizations that consume nearly all of their minutes. Monthly optimization enables enterprises to reduce the minutes that are forfeited each month by adding more users or by reducing the minutes in the pool. Large pools can help to reduce this risk of exceeding the allotted minutes.

- **Invoice Management:** Invoice management, validation and resolution of billing errors, and reporting for wireless are similar to wireline functions. Effective programs process paper and electronic billing media and expense allocation charge backs. With wireless services, there are opportunities to reduce expenses through optimization of the service plan to the actual consumption.
- **Validation and Resolution:** This step includes the auditing of expenses to contracts. Billing errors are identified and documented, and claims are filed and resolved with Wireless Telecom Service Providers.
- **Plan Optimization:** Wireless plans present opportunities to save money by reconciling individual service plans to monthly usage. Usage trending is a monthly activity. A three-month rolling trend of usage by user provides ample data for adjusting rate plans. Automation can enable enterprises to efficiently manage optimized service plan change requests with Wireless Service Providers.



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“Closely consider the ramification of allowing out of pocket reimbursement. If someone can have the company reimburse them for using their personal phone, you have essentially allowed them to bypass most of the company's policies. Plus, you may not be able to leverage the spend.”

VP Mobility Services
Diversified
Manufacturer

- **Reconciliation of Orphaned Devices:** Enterprises must have a mechanism to track and reconcile devices, employee status, and service plans. This will prevent situations where organizations pay for devices that are no longer being used or for services that continue to be used after an employee leaves the organization.
- **Reporting:** Data should be available in a usable format that is readily accessible to managers with detailed and accurate information on telecom expenses. Effective reporting will help provide dashboard information in a graphical format with trending for expenses.

On February 18, 2008, Verizon Wireless and AT&T introduced unlimited U.S. nationwide voice services plans with no roaming. For employees that consume large volumes of minutes, it may be more cost effective to enroll them in an individual unlimited plan. These plans are attractive for individuals that could break a pool's allotment of voice minutes, but our current survey found that, for most enterprises, a managed corporate pool plan will provide a lower NET Effective CPM. Pooled plans in the survey averaged between \$48 and \$84 per user for voice services. The survey shows that pools are currently more cost effective compared to unlimited flat-rate plans for voice services priced at a fixed rate of \$99.

However, it is important to weigh the costs that are involved in optimization efforts against the savings. As prices for flat rate plans fall, the benefits from optimization also drop. Ultimately, there may come a time when enterprises find the added costs to perform optimization are not worth the savings. It should also be noted that these plans currently focus on voice minutes. Many enterprises are squandering funds for unlimited data plans. The penalties for exceeding the allowance for data usage are less costly compared to the penalties for exceeding voice minute allowances; enterprises should collect and analyze information on data consumption to perform optimization of data plans. This will often be more cost effective compared to having unlimited data plans.

Optimization is part of wireless expense management which, in turn, is a small part of wireless mobility management program. A wireless mobility management program has more benefits than simply savings from the optimization of the service plans.

Device Management and Security

- **Remote “Kill” to Protect Data on Devices:** A wireless mobility help desk is needed for employees to request that the data on lost or stolen devices is “killed” or wiped clean.
- **Device Replacement:** A wireless help desk can also provide for rapid replacement of wireless devices to ensure there is no loss of productivity for mobile workers.
- **Remote Application Updates:** Enterprises must have a mechanism to deliver updates, for remote devices, installed software, security patches, and back-up data that is on the devices.

Chapter Three explores the actions that enterprises are taking, and it breaks new ground identifying what is working for organizations.



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“We used to manage an inventory of devices and billing. Now we are starting to track the operating systems and applications on the devices. Our needs have changed because managers want to have more sophisticated applications to keep their staff out of the office in front of customers.”

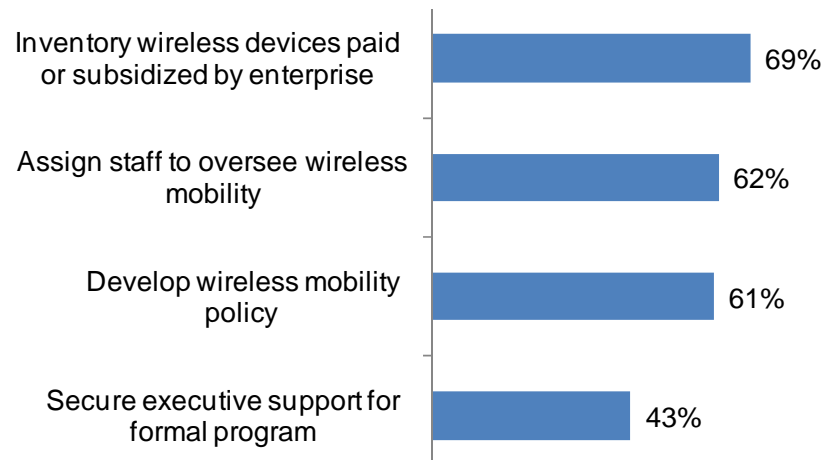
*Director of IT
Commercial Real
Estate Firm*

Chapter Three

Inventory Is Critical

An inventory is the foundation for wireless mobility programs, and 69% of enterprises indicate that creating an inventory is their top action. In addition, rapid growth in wireless technology has led enterprises to assign staff and develop policies that set boundaries and expectations to govern the program.

Figure 6: Top Actions for Managing Wireless Mobility



(Respondents selected three choices for this question)

Source: AOTMP, April 2008

Based on the actions listed above, adoption of wireless mobility policies for enterprise programs appears to be quite widespread, but follow-up on this item reveals that many enterprises need to revise the policies that were set for cell phones. The emergence of smart devices with converged voice and data require policy updates. In addition, 62% of enterprises do not have exception reporting to identify non-compliant spending.

Table 4: Enterprise Wireless Mobility Programs

Program	Currently Exists	Plan to Implement	No Plan to Implement
Invoice processing & allocation chargeback	79%	11%	10%
Ongoing wireless plan optimization	53%	29%	18%
Bill verification to contracts	63%	24%	13%
Ability to rapidly replace lost/damaged devices	58%	17%	25%
Tracking of voice & data used compared to monthly plan	39%	34%	26%
Exception reporting for non-compliant spending to corporate policy	38%	33%	29%
Help desk support for wireless applications & security updates	62%	19%	19%



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Multivariate statistical analysis provides insights regarding relationships between challenges and actions that enterprises are taking to gain control. Table 5 shows a correlation between the top actions that are taken in responses to the challenges that enterprises face. The order and groupings listed below reflect relationships for each category.

Table 5: Relationships Between Challenges & Actions

Top Challenges	Similarity	Top Actions
Lack of accurate inventory	58%	Developed and implemented a formal corporate policy for wireless mobility
Insufficient expertise	54%	
Top Challenges	Similarity	Top Actions
Most devices/plans are not corporate liable they are employee liable	64%	Obtained executive support for a formal initiative to manage wireless mobility
Top Challenges	Similarity	Top Actions
Employee resistance to corporate policies	54%	Assigned staff to oversee wireless mobility management
Top Challenges	Similarity	Top Actions
Lack of automation	60%	Created an inventory of all wireless devices paid for or subsidized by the company
Top Challenges	Similarity	Top Actions
Lack of resources	54%	Implemented technology or hired supplier(s) to secure mobile devices and data
		Implemented technology or hired supplier(s) to improve visibility and control of wireless expenses
Top Challenges	Similarity	Top Actions
Decentralized uncontrolled procurement of wireless devices and service plans	60%	Established help desk support of wireless devices and applications

* Similarity refers to the degree of similarity with which the individual members of a statistical cluster responded

Source: AOTMP, April 2008

It is interesting to note how organizations that identified the lack of resources as a top challenge implemented technology to address this issue instead of assigning staff to address their top challenge. Organizations that assigned staff to oversee wireless mobility management did this in response to employee resistance to corporate policies.



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“Controls are needed for the carriers, devices and plans that are allowed. Without controls it can be difficult to leverage spend and ensure the best value.”

Director of Information
Technology
Medical Products
Company

AOTMP also surveyed enterprises to learn what functions are currently in place relating to three categories for wireless mobility programs. These categories include: mobility policy and governance, wireless expense management, and device management and end-point security. This study also sought to identify which components are integrated.

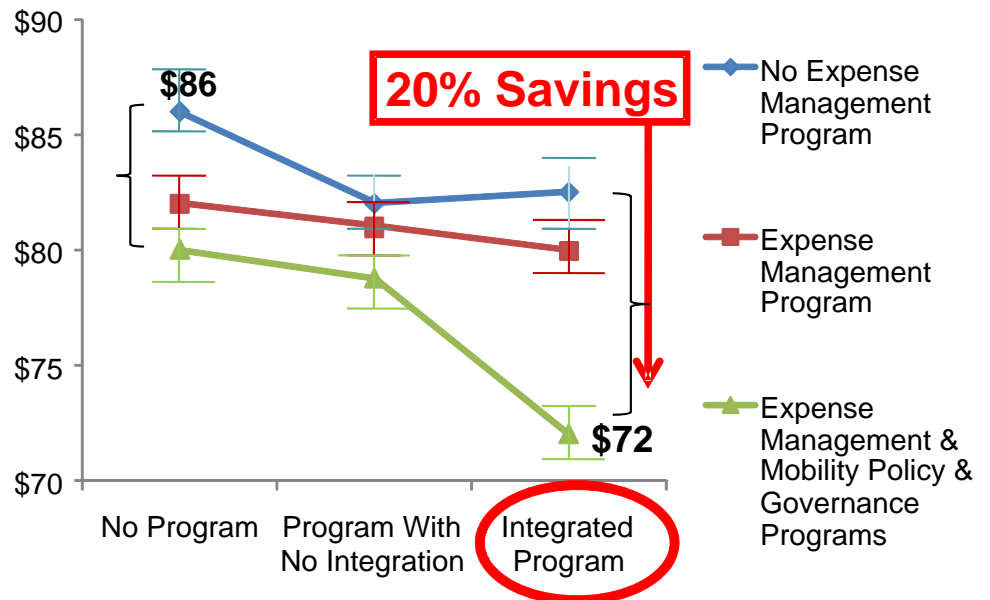
Table 6: Wireless Mobility Programs

Current Program	Integrated with at least one other category	Not integrated with any other listed categories	Don't currently have this program
Mobility policy & Governance	44%	22%	34%
Wireless Expense Management	47%	22%	32%
Device Management & End-Point Security	48%	17%	35%

Source: AOTMP, April 2008

The findings below represent statistical analysis of variance (ANOVA). With this study, variances are partitioned into components due to different explanatory variables. The analysis compared monthly expenses for programs that had no expense management programs, enterprises with expense management that are not integrated with policy governance and programs that are integrated. The absolute or actual monthly spending reported below is not critical to the finding. The key finding is that enterprises gain an additional 20% savings when policy governance is integrated with expense management. Enterprises should understand there is a definite correlation, and savings may be gained from integrating policy governance with expense management.

Figure 7: Benefits of Integrating Policy Governance & Expense Management





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“There is no one answer for mobility for the enterprise. Be sure to include an enterprise wireless policy as part of your strategy. It is the foundation that everything else will be built on”

**IT Supply Manager
Manufacturer of Power
Generation Equipment**

Conclusion

While cost is the primary driver for wireless mobility, as reported by 58% of enterprises, enterprises must think beyond their monthly fees for wireless service. The availability of unlimited voice plans for less than \$100 and the growth of applications for smart devices will accelerate the move from a narrow focus on cost to a broader focus on wireless mobility management.

The purpose of enabling the workforce with wireless mobility is productivity. There are real opportunities to enhance worker productivity for organizations wishing to gain a competitive edge. Risks related to how the device is used and the information on the device raise serious issues that must be addressed with a formal policy and a program to manage it. Wireless mobility devices are often thought of as disposable items, yet these devices may actually increase in value over time.

As users access sophisticated enterprise applications and download corporate data, product data, and financial information, the “street value” will increase for people that exploit this sensitive data. Enterprises must manage wireless mobility devices like they manage computers - with a focus on security of the data on devices, applications management, and risk mitigation for inappropriate use of devices.

Enterprises should consider some important questions:

- Which devices should our employees use?
- How will devices and services be sourced?
- What controls will help to consistently enforce the policy?
- Who will provision software for these devices?
- How secure is the data on the devices?
- How can we efficiently collect all the billing data?
- What system will identify billing errors, optimize billing plans, and identify bills for people that no longer work for the organization?
- Who will resolve billing disputes, execute changes for optimized plans and request disconnects for orphaned devices?
- What reporting will drive accountability for employees’ monthly service fees?
- How will data be remotely wiped from lost or stolen devices?
- What is the optimal return for the cost of new applications to enhance mobile employee’s productivity?
- Who supports employees when they need replacements?
- How will software, data, and security patches be updated for wireless devices?

An effective policy will align the enterprise’s goals with employees’ needs. Enterprises must research, test, and evaluate mobile devices, services, and applications with a pilot group of employees who use the devices and services in the field for their jobs. Organizations that do not have a formal program in place will need to identify how employees in different departments and job functions currently use wireless services and mobility applications. Organizations should perform a cost benefit analysis for current applications and new technologies to determine which capabilities provide optimal benefits for employee productivity based on job role.



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The expense management functions address validation and resolution of billing errors and plan optimization. Based on employee turnover, one-time savings from disconnecting orphaned devices of employees that are no longer working for the enterprise can be significant. Optimization also provides real savings for organizations by helping to ensure that enterprises use the minutes that they pay for each month.

Enterprises must establish methods to enforce their policies. Integrating policy with expense management provides an additional 20% savings compared to programs that are not integrated. A policy must also establish procedures for employees to contact a help desk when they lose a device that contains sensitive information. In addition, it should set clear expectations for the level of support that will be provided. Training programs for the mobile workforce can help to ensure that assets are used to the full potential by the mobile workers and can reduce the volume of calls for support.

The rapid adoption of wireless technology among employees has reached the point where it is necessary to establish a formal program to manage wireless mobility. Undisciplined organizations let employees make their own choices. Top performers shape employees expectations by communicating policy and enforcing it. Wireless technology is rapidly changing, making the standardization and reduction of the range of choices critical to achieving top performance. The challenge is for enterprises to implement the standards, technologies, policies, processes and best practices necessary to manage wireless mobility for environment management.



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Research Analyst Profile

Joe Basili

Vice President Research, AOTMP

Joe Basili is Vice President of Research for AOTMP and a recognized thought leader with more than nine years of experience in telecommunications networks and IT asset management. Joe has conducted research, written extensively and keynoted conferences on a range of topics that include telecommunications expense management, wireless cost management, network performance, unified communications, and Electronic Invoice Presentment and Payment (EIPP).

Experience

Drawing on a career that includes work in marketing, sales, operations, and management, Joe offers market insights, trend analysis, and customer research. His recent experience includes Business Process Outsourcing (BPO), professional service consulting, SaaS hosted and licensed software, invoice management, billing and e-media, SAS 70 Type II processes, Sarbanes-Oxley compliance, and payment automation.

Education

Joe holds a B.A. with a double major in Economics and Political Science from Vanderbilt University. He continues his education with an active interest in technology's application to business problems.



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Appendix A: Research Methodology

In February 2008, AOTMP conducted a survey and examined the challenges enterprises face in Wireless Mobility Management. The online survey for this report included 248 respondents from a variety of industries, and it included questions designed to determine the following:

- What is driving enterprises to focus on wireless mobility management?
- What are the top challenges to managing wireless mobility?
- Which functions do enterprises have, which functions do they plan to add, and which areas are not likely to be adopted for wireless mobility management?

AOTMP supplemented the online survey with e-mail and telephone interviews with select survey respondents, gathering additional information on strategies, experiences, and results.

Enterprise respondents included the following:

Job title/function:

- | | |
|---------------------|-----|
| • Senior Management | 3% |
| • CIO/CFO/CPO | 7% |
| • Vice President | 4% |
| • Director | 12% |
| • Manager | 36% |
| • Staff | 31% |
| • Consultant/Other | 7% |

25 + Industries:

- | | |
|----------------------|-----|
| • Manufacturing | 16% |
| • Financial Services | 13% |
| • Healthcare | 11% |
| • Education | 8% |
| • Technology | 6% |
| • Government | 5% |

Geography:

- | | |
|-------------------|-----|
| • North America | 88% |
| • Europe | 6% |
| • Asia Pac | 3% |
| • Central America | 3% |

Company size:

- \$24 Mill avg. spend for voice, data, and wireless telecom services
- Range: \$100K to \$200 Mill
- \$9 Mill Avg. wireless spend

TEM Supplier sponsors had no substantive influence on the direction of this report. Their sponsorship has made it possible for AOTMP to make these findings available to readers at no charge.



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Appendix B: AOTMP Research Publications & Training

AOTMP Research Publications

- [2008 Wireless Mobility Market Landscape](#) (March 2008)
- [CFOs' and CIOs' Perspectives: A Top-Down View of Telecom & IT Management](#) (January 2008)
- [TEM Decisions'07 Conference Brief](#) (November 2007)
- [Best Practices in Selecting a TEM Supplier: Setting the Framework for a Successful Engagement](#) (November 2007)
- [Telecom Expense Management Market Landscape Fall 2007](#) (September 2007)
- [TEM Supplier Directory](#) (August 2007)

Information on these and other AOTMP publications and programs can be found at www.aotmp.com.

AOTMP Training

AOTMP offers rigorous certification programs that include intensive training and education in key areas within telecom environments. Certifications are obtained by successful completion of intensive Certification Bootcamps and testing. Certification levels include:

- Certified Telecom Management Specialist (CTMS)
- Certified Telecom Management Executive (CTME)
- Certified Telecom Management Administrator (CTMA)

Matching your organization's telecom needs with the right skill set can help you make smarter, more cost-effective hiring decisions. AOTMP Skills Assessments offer a means to evaluate skills and make more confident staffing choices. Skills Assessments also aid in evaluating employee growth, personal strength, and career path progression. Organizations find value in AOTMP's Skills Assessment offering for:

- Candidate selection
- Pre-employment testing
- Performance measurement
- Management selection

Download the [AOTMP Skills Assessment Fact Sheet](#).

About AOTMP

AOTMP is the authority on standards and best practices for telecom management. AOTMP provides information, resources, tools, and benchmarking standards through certification programs, skills assessments, environment assessments, research publication, and industry conferences. Our programs serve telecom and IT professionals working for enterprises, Service Providers, and TEM Solution providers.

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