# STATE-ISSUED CELL PHONES 

Twenty-Nine Percent of Cell Phones Had Limited or No Use and Opportunities Exist for Savings

## Mission Statement

The mission of the Auditor's Office is to hold state government accountable. This means ensuring that taxpayer funds are used effectively and efficiently, and that we foster the prevention of waste, fraud, and abuse.

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## Douglas R. Hoffer STATE AUDITOR



# STATE OF VERMONT <br> OFFICE OF THE STATE AUDITOR 

November 4, 2013
Addressees (see last page of letter)
Dear Colleagues,
The Department of Buildings and General Services (BGS) contracts with cell phone providers on behalf of all state agencies. However, decisions related to cell phone purchases and management of their use and associated charges are decentralized and handled by individual state entities, so there is no central responsibility to track utilization and total spending. To assess the ramifications of state practice, we audited statewide cell phone use during calendar year 2012 to determine whether 1) state-issued cell phones are underutilized and 2) state agencies and departments could reduce their costs for state-issued cell phones.

In 2012, charges for 3,080 state-issued cell phones totaled $\$ 1,646,995$. Four state entities - Agency of Natural Resources, Agency of Transportation, Department for Children and Families and Department of Public Safety accounted for 62 percent of the payments.

Our audit found that 9 percent of state-issued cell phones were not used at all and 20 percent had limited use. Limited use was defined as averaging less than 100 voice minutes and less than 25,000 kilobytes of data per month. This equates to five minutes of phone calls, two emails with attachments and less than two websites viewed per business day. The most prevalent service plan purchased by the State is for 400 voice minutes with unlimited data usage. These little used phones cost the State about \$272,000.

Many state entities manage voice minutes via cell phone pools to avoid overage charges for exceeding monthly voice minute allowances. The pools enable sharing of voice minutes among all cell phones within a pool. The State had 115 cell phone pools in 2012, and these pools purchased a total of approximately 11 million voice minutes. Of this, over 5.1 million minutes went unused. In addition, of the 2,899 cell phones with bundled voice and data service plans, 42 percent used no data or less than 25,000 kilobytes of data per month. This suggests opportunities for additional savings by switching to lower cost monthly service plans that more closely reflect actual usage (i.e., voice only).

When asked, agencies and departments said that some cell phones were expected to have intermittent use, such as those held to expedite emergency response or to provide some assurance of personal safety for state employees. However, others had phones with no use or limited use as a result of lack of business need. In some cases, cell phones were overlooked for a period of time, but have been cancelled or will be cancelled.

The Department of Information and Innovation has a statewide policy for security of mobile devices and the Department of Human Resources has a statewide policy addressing personal use of state-owned wireless communication devices. However, the State lacks a statewide policy that addresses other aspects of cell phone management, such as determination of criteria for business need, periodic review of usage levels, and consideration of continued business need.

Responsibility for most of the decision making relative to cell phones, such as determination of business need and how to monitor usage and cost, resides at state agencies and departments. Based on the responses of 42 out of 45 surveyed state entities, less than half have policies or procedures for managing cell phones; only 19 percent had written criteria to guide decisions regarding who should be assigned a cell phone; and about 10 percent had written policies addressing monitoring cell phone costs. Without consistent cell phone management practices and continuous monitoring of cell phone use, the State risks paying for cell phones and services that are not needed.

We made various recommendations to the Secretary of the Agency of Administration and the commissioners of the Department of Information and Innovation and of the Department of Buildings and General Services. These recommendations include 1) developing statewide guidelines addressing aspects of cell phone management and 2) requiring state agencies and departments to document their policies and procedures related to cell phone management. We also made recommendations to the five organizations that we reviewed, including working with cell phone providers to periodically analyze cell phone usage patterns to identify whether alternative plans at lower cost would better align with actual usage.

I would like to thank the management and staff at the Agencies of Natural Resources and Transportation, and the Departments of Buildings \& General Services, Information and Innovation and the Department for Children and Families for their cooperation and professionalism during the course of the audit.


Doug R. Hoffer
Vermont State Auditor

## ADDRESSEES

The Honorable Shap Smith
Speaker of the House of Representatives
The Honorable John Campbell
President Pro Tempore of the Senate
The Honorable Peter Shumlin
Governor
Mr. Jeb Spaulding
Secretary
Agency of Administration
Ms. Deb Markowitz
Secretary
Agency of Natural Resources
Mr. Brian Searles
Secretary
Agency of Transportation
Mr. Michael J. Obuchowski
Commissioner
Department of Buildings and General Services
Mr. David Yacovone
Commissioner
Department for Children and Families
Mr. Richard Boes
Commissioner
Department of Information and Innovation
Mr. Keith Flynn
Commissioner
Department of Public Safety

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Vermont state agencies sometimes provide their employees with cell phones to use while on the job. Access to a cell phone helps state employees perform their duties and at times respond quickly in an emergency. Some employees are required to be available 24 hours a day or to travel for their job duties. For others, cell phones provide some assurance of their personal safety.

The Department of Buildings and General Services (BGS) contracts with three cell phone providers on behalf of all state agencies. However, cell phone use and charges are managed by each state entity and there is no state entity with the responsibility to centrally track use and total spending. To address this, we audited statewide cell phone use during calendar year 2012 to assess whether 1) state-issued cell phones are underutilized and 2) state agencies and departments could reduce their costs for state-issued cell phones.

Although the State contracts with three cell phone providers, one was minimally used and as a result has not been included in the scope of the audit. The two providers included in the scope of the audit were AT\&T and Verizon. Together they were paid $\$ 2.2$ million ${ }^{1}$ by the State in calendar year 2012. According to VISION, the State's payments to AT\&T and Verizon cumulatively increased 19 percent from calendar year 2011 to calendar year 2012.

For purposes of our audit analysis we requested cell phone usage ${ }^{2}$ and cost information directly from the providers. Verizon provided us with a complete data file for 2012. AT\&T was unable to provide us with a single complete data file. As an alternative, AT\&T provided us with access to its Premier ${ }^{3}$ website, an on-line customer account management resource, which provided usage and cost information for accounts that comprised 76 percent ${ }^{4}$ of the State's 2012 payments to AT\&T. In total, usage and cost data obtained from

[^1]AT\&T and Verizon contained information for over $\$ 2$ million in charges. Of the $\$ 2$ million spent, we identified $\$ 1.6$ million as related to cell phones. ${ }^{5}$

During the course of the audit, it came to our attention that two agencies and a department had switched or were considering switching from telephone land lines to primarily cell phones and we have provided a section at the end of this report that provides our observations on this topic. Appendix I contains the scope and methodology we used to address our objectives. Appendix II contains a list of abbreviations used in this report.

[^2]
# Highlights: Report of the Vermont State Auditor State-Issued Cell Phones: Twenty-Nine Percent of Cell Phones Had Limited or No Use and Opportunities Exist for Saving 

(November 2013, Rpt. No. 13-07)
$\left.\left.\begin{array}{|l|l|}\hline \text { Why We Did this Audit } & \begin{array}{l}\text { Cell phone use and charges are managed by each state entity and there is no } \\ \text { state entity with the responsibility to centrally track use and total spending. } \\ \text { Because of the decentralized management of state-issued cell phones, our } \\ \text { objectives were to assess whether 1) state-issued cell phones are underutilized } \\ \text { and 2) state agencies and departments could reduce their costs for state-issued } \\ \text { cell phones. }\end{array} \\ \hline \text { Objective 1 Finding } & \begin{array}{l}\text { Out of 3,080 state-issued cell phones, about 29 percent had no or limited use } \\ \text { in calendar year 2012. Limited-use phones are those that average less than } \\ \text { 100 voice minutes and less than 25,000 kilobytes (KB) of data per month. } \\ \text { This equates to five minutes of phone calls, two emails with attachments and } \\ \text { less than two websites viewed per business day. According to four state } \\ \text { organizations with more than half of the no-use and limited-use cell phones } \\ \text { and the department authorized to provide direction and oversight for } \\ \text { telecommunications services, some cell phones were expected to have } \\ \text { intermittent use, such as those held to expedite emergency response. } \\ \text { However, others had no-use or limited-use as a result of lack of business } \\ \text { need. In some cases, cell phones were overlooked for a period of time, but } \\ \text { have been cancelled or will be cancelled. }\end{array} \\ \text { Based on a survey of state entities, 18 out of 42 respondents had entity- }\end{array}\right\} \begin{array}{l}\text { specific policies, procedures or guidelines related to cell phone management. } \\ \text { Those policies and procedures addressed some aspects of cell phone } \\ \text { management, but none required monitoring to ensure that monthly service } \\ \text { plans were aligned with usage needs. Further, the State had issued mobile } \\ \text { device security and personal use policies required to be followed by all state } \\ \text { entities, but lacked guidelines for other aspects of cell phone management } \\ \text { such as criteria to determine eligibility (e.g. business need) for a cell phone. } \\ \text { Without consistent cell phone management practices and continuous } \\ \text { monitoring of cell phone use, there is a risk that the State will pay for cell } \\ \text { phones that are not needed. }\end{array}\right\}$

[^3]
## Highlights (continued)

| Objective 2 Finding <br> (continued) | We considered two approaches to identify potential savings. First, we <br> assumed that all cell phones with no-use and limited-use could be eliminated <br> statewide. Based on 2012 costs, this could yield savings of approximately <br> $\$ 272,000$. <br> Alternatively, we analyzed potential savings for five of 115 cell phone pools, <br> used by the State to share voice minutes among multiple cell phones within <br> cell phone accounts. In our analysis, we calculated the combined savings that <br> could result from 1) eliminating no-use and limited-use cell phones and 2) <br> switching to lower cost monthly service plans that more closely reflect actual <br> usage. This resulted in potential annual savings of approximately \$68,000 for <br> four of the five pools - \$51,000 by eliminating phones and \$17,000 by <br> switching service plans. Annual savings for each of the four pools ranged <br> from \$14,000 to \$19,000. |
| :--- | :--- |
| The five pools analyzed represented approximately 30 percent of the total <br> unused voice minutes in all cell phones pools. Given that the State had an <br> additional 110 pools with about 70 percent of the unused minutes, it is likely <br> that further savings would be identified by performing similar analyses for <br> the remaining pools. |  |
| What We Recommend | We made various recommendations to the Secretary of the Agency of <br> Administration and the commissioners of the Department of Information and <br> Innovation and of the Department of Buildings and General Services. These <br> recommendations include 1) developing statewide guidelines addressing <br> aspects of cell phone management and 2) requiring state agencies and <br> departments to document their policies and procedures related to cell phone <br> management. We also made recommendations to the five organizations that <br> we reviewed, including working with cell phone providers to periodically <br> analyze cell phone usage patterns to identify whether alternative plans at <br> lower cost would better align with actual usage. |

## Background

## Cell Phone Management and Policies

Responsibilities for contracting with cell phone providers, developing policies for cell phones and managing cell phone accounts are divided between BGS, the Department of Information and Innovation (DII), the Department of Human Resources (DHR) and individual state entities.

BGS is responsible for contracting for goods and services on behalf of state entities and administers three master contracts for cell phone services with Verizon, AT\&T and Sprint. Two of the contracts, AT\&T and Sprint, were negotiated by the Western States Contracting Alliance (WSCA), the primary cooperative purchasing arm of the National Association of State Procurement Officials (NASPO). This cooperative group contracting consortium contracts on behalf of state government departments, institutions, agencies and political subdivisions for 15 member states. ${ }^{7}$ This group allows non-member states to participate via contract addendums. ${ }^{8}$ Similarly, the Verizon contract is a Federal General Services Administration (GSA) contract that allows for other entities to participate. By contracting through WSCA and GSA, BGS enables the State's participation in contracts with AT\&T and Verizon. Significant contract provisions, such as service plan options and pricing, are contained within the master contracts negotiated by WSCA and GSA.

Agency of Administration Bulletin 3.5 requires state entities to utilize the master contracts administered by BGS. Information about the contracts and contact information for the providers' account representatives is available on BGS's website. State entities work directly with provider account representatives to establish their own cell phone accounts, obtain cell phone product and service-related information, select service plans and monitor payments.

[^4]DII and DHR have issued policies relevant to cell phones that are applicable to all state entities. 22 V.S.A. $\S 901$ (1) authorizes DII "to provide direction and oversight for all activities directly related to information technology, including telecommunications services, information technology equipment, software, accessibility, and networks in State government." DII's Mobile Device Policy addresses security requirements for state-issued and personal devices used for state business. The requirements include having a password, setting a lock time, and reporting incidents of lost and stolen devices. DHR's Electronic Communication and Internet Use Policy prescribe rules of conduct and procedure for state employees when using or accessing state governmentowned electronic communication devices.

Practices related to cell phone management vary among state entities. Some entities have established their own policies and procedures, covering aspects of cell phone assignment or monitoring; others are guided only by DII and DHR policies.

## Cell Phone Providers' Plans

The cell phone providers offer a variety of service plans, with monthly voice allowances ranging from 100 plan minutes to 6000 plan minutes. Both providers offer voice only plans, as well as "bundled" voice and data plans. For the plans offering data, data usage and text messaging is generally unlimited. Bundled plans are not available with service plans lower than 300 voice minutes for AT\&T and 400 minutes for Verizon.

Plan prices are similar between the providers. The lowest voice-only plans start at about $\$ 23$ a month for a 100-minute plan and increase to approximately $\$ 30$ a month for a 300/400-minute plan. Bundled (voice and data) plans start at about $\$ 50$ a month. Moreover, cell phone plans generally include some other features, such as call waiting, call forwarding and basic voice mail. Other features, such as push-to-talk, have additional charges.

State entities may switch cell phone service plans with the same provider and between providers without incurring any penalties.

An additional feature offered by the providers is pooling of voice minutes. This allows state entities to combine voice allowances across multiple cell phones, which can aid in avoiding overage charges because some of the users in a pool may not use all of their plan minutes, offsetting other users that exceed their monthly plan minutes. Generally, plan minutes are pooled within
a billing account. ${ }^{9}$ Cell phone pools are designed to share minutes, not data, as data allotments are generally unlimited. There is no limit as to the number of phones that can be signed up within a cell phone pool.

For those state entities utilizing AT\&T, the most commonly held plan is for 300 voice minutes with unlimited data and text messaging. Likewise, for Verizon, the most commonly held plan is for 400 voice minutes with unlimited data and text messaging.

## Number of State-Issued Cell Phones and Related Cost

In calendar year 2012, AT\&T and Verizon charges for 3,080 state-issued cell phones, including services and equipment, totaled $\$ 1,646,995$. Four state entities - Agency of Natural Resources (ANR), Agency of Transportation (AOT), Department for Children and Families (DCF) and Department of Public Safety (DPS) - accounted for 62 percent of the payments. Figure 1 shows the number of cell phones and related charges these four state entities and the remainder of the State had with AT\&T and Verizon.

Figure 1: Vermont State Entities - the Number of Cell Phones and Related Charges for 2012 AT\&T and Verizon

Number of Cell Phones and Related Charges 2012 AT\&T and Verizon

${ }^{\text {a }}$ Excludes Department of Motor Vehicles' (DMV) two AT\&T cell phone accounts because DMV had not registered for on-line account management. Usage and cost information for AT\&T accounts was only available from AT\&T for state organizations that had registered for on-line account management.

[^5]
# Objective 1: Twenty-Nine Percent of State-Issued Cell Phones Had Limited or No Use during 2012 

Due to the nature of certain public services provided by the State, some cell phones have intermittent use, such as those held solely to expedite emergency response time or those used to provide some assurance of the safety of state employees. However, our audit found that 9 percent of stateissued cell phones were not used at all and 20 percent had limited use, ${ }^{10}$ averaging less than 100 voice minutes and less than

## Which phones did we consider no use and limited use?

No use: A phone that was not used during 2012.

Limited use: A phone that used, on average, less than 100 minutes $^{\mathrm{a}}$ and less than 25,000 KB of data ${ }^{\text {a }}$ per month in 2012. $25,000 \mathrm{~KB}$ approximates 40 emails with attachments and 33 web pages accessed per month.
a Assuming 20 business days per month, this equates to five minutes of phone calls, two emails with attachments and less than two websites viewed per business day. $25,000 \mathrm{~KB}$ of data per month in 2012, despite the fact that the most prevalent service plan purchased by the State is for 400 voice minutes with unlimited data usage. ${ }^{11}$ These little used phones cost the State approximately $\$ 272,000$. See Table 1 for costs of nouse and limited-use phones.

Responsibility for most of the decision-making relative to cell phones, such as determination of business need and how to monitor usage and cost, resides at state agencies and departments. Based on the responses of 42 out of 45 surveyed state entities, about 43 percent indicated that they had policies or procedures for managing cell phones, but only about 19 percent had written criteria to guide decisions regarding who should be assigned a cell phone and about 10 percent had written policies addressing monitoring cell phone costs. Although the State had policies to address security of mobile devices and restrict personal use of state-owned communication devices, the State did not provide overall guidance for managing cell phones to state departments and agencies. Without policies to guide decision-making and monitoring of these

[^6]state assets, there is risk the State will pay for cell phones that are not needed or for service plans that do not reflect actual use.

Table 1 shows all state-issued cell phones by category of use and cost for 2012.

Table 1: State-issued Cell Phones in 2012: Categories of Use and Total Cost

| Category of Use | Number of <br> Phones | Percent of <br> phones | Total Cost |
| :--- | :---: | :---: | ---: |
| No-Use | $287^{\mathrm{a}}$ | $9 \%$ | $\$ 48,936^{\mathrm{a}}$ |
| Limited-Use | 608 | $20 \%$ | $\$ 223,424$ |
| Higher Use | 2,185 | $71 \%$ | $\$ 1,374,635$ |
| Total | $\mathbf{3 , 0 8 0}$ | $\mathbf{1 0 0 \%}$ | $\$ \mathbf{1 , 6 4 6 , 9 9 5}$ |

46 of the 287 no-use cell phones did not incur charges in 2012.
Collectively, ANR, AOT, DCF and DPS had 1,951 state-issued cell phones and accounted for about $\$ 1,015,000$ (approximately 62 percent) of the total cell phone costs in 2012. In addition, the majority of the no-use and limited use phones belonged to these four entities. See Table 2 and Table 3 for the distribution of no-use and limited-use phones among state entities and the associated costs.

No-use phones - These are cell phones that had zero voice and data usage during the months the phones were in existence in 2012. Periods of existence of these cell phones ranged from one month to twelve months.

Table 2 demonstrates the distribution of no-use phones among state entities and the related costs.

Table 2: No-Use Cell Phones and Related Total Cost by State Entity

| State Entity | Number of <br> No-Use <br> Phones | Percent of <br> No-Use Phones | Total <br> Cost |
| :--- | :---: | :---: | :---: |
| ANR | 59 | $21 \%$ | $\$ 6,448$ |
| AOT | 37 | $13 \%$ | $\$ 10,806$ |
| DCF | 46 | $16 \%$ | $\$ 13,418$ |
| DPS | 76 | $26 \%$ | $\$ 7,039$ |
| Other | 69 | $24 \%$ | $\$ 11,225$ |
| Total | $\mathbf{2 8 7}$ | $\mathbf{1 0 0 \%}$ | $\$ 48,936$ |

Eighty-two of the 287 cell phones in this category incurred about $\$ 32,000$ of charges during 2012 and were not used at all for 12 months.

Limited-use phones - These are cell phones that averaged less than 100 voice minutes and less than $25,000 \mathrm{~KB}$ of data usage per month. More than half of the 608 limited-use phones used less than 30 voice minutes and less than $9,000 \mathrm{~KB}$ of data per month (about 14 emails with attachments and 12 web pages viewed).

Table 3 demonstrates the distribution of limited-use cell phones among state entities and the related costs.

Table 3: Limited Use Cell Phones and Related Total Cost by State Entity

| State Entity | Number of <br> Limited-Use <br> Phones | Percent of <br> Limited-Use <br> Phones | Total <br> Cost |
| :--- | :---: | :---: | :---: |
| ANR | 136 | $22 \%$ | $\$ 38,578$ |
| AOT | 92 | $15 \%$ | $\$ 32,698$ |
| DCF | 68 | $11 \%$ | $\$ 34,643$ |
| DPS | 61 | $10 \%$ | $\$ 16,781$ |
| Other | 251 | $42 \%$ | $\$ 100,724$ |
| Total | $\mathbf{6 0 8}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{\$ 2 2 3 , 4 2 4}$ |

In 2012, the total cost of no-use and limited-use cell phones for ANR, AOT, DCF and DPS was $\$ 160,411$. As a result, we examined the reasons for nouse and limited-use phones at these entities and DII, which has statutory responsibility ${ }^{12}$ to provide direction and oversight for telecommunications services. We also reviewed policies and procedures for the five entities and surveyed state organizations with AT\&T and Verizon cell phone accounts regarding policies and procedures.

Explanations obtained from ANR, AOT, DCF, DPS and DII indicate that intermittent use is expected for some phones, including cell phones held for instances of emergency response or to provide some assurance of personal safety for state employees. In addition, during 2012 ANR terminated the use of most landlines and switched to primarily cell phones. According to ANR personnel, the transition period resulted in some cell phones having only limited use. The five entities also noted that some cell phones had no use or limited use as a result of lack of business need or that the cell phones were

[^7]overlooked for some time, but have since been cancelled or will be cancelled. In addition, one department indicated that the lack of use prompted it to reconsider the business need for certain phones.

Overall, we observed a variety of practices and policies related to cell phone management within the five organizations. All of them described processes used to review monthly invoices prior to payment. Two indicated that their review included identifying and seeking reversal of inaccurate charges related to Canadian roaming. ${ }^{13}$ AOT utilized a Mobile Device Committee to make decisions about how cell phones would be administered, such as deciding when cell phones could be upgraded. Others have not addressed what justifies a cell phone upgrade or specified whether upgrades will be for the most recent version, which may trigger costly equipment charges, or for the least expensive option available.

ANR, AOT, DCF and DPS had written policies and procedures applicable to their organizations as a whole. In addition, DII had issued a policy for security of mobile devices, addressing the protection of State of Vermont data and other security-related concerns, and this policy applied to all state organizations. There was some commonality among the policies. For example, most addressed security concerns related to cell phones. However, there were also some aspects of managing cell phones, such as criteria to determine eligibility for a cell phone and monitoring usage, which were only partially addressed or not addressed at all. ANR, DPS and DCF included business need in their policies as a criterion for cell phone assignment. However, only DCF specified what constituted a business need. Within AOT, one division had defined business need specifically for that division, but the overall policy for AOT did not address criteria for cell phone assignment. None of the organizations addressed requirements for managerial approval in the written policies, even though all indicated that current practice was to obtain requests for cell phones directly from managers or to obtain managerial approval prior to issuing the cell phone. Finally, none of the entities had documented policies and procedures requiring a systematic mechanism to monitor that cell phone plans purchased were aligned with actual usage or to periodically assess continued business need for cell phones.

The State had two cell phone policies that were applicable to all state entities - DII's statewide policy for security of mobile devices and DHR's statewide policy addressing personal use of state-owned wireless communication

[^8]devices. However, the State lacks an overall statewide policy that addresses other aspects of cell phone management, such as determination of criteria for business need, periodic review of usage levels and consideration of continued business need. Based on the responses of 42 of 45 state organizations surveyed, 18 have policies and procedures for managing cell phones, but eight had written criteria to guide decisions regarding who should be assigned a cell phone and four addressed monitoring cell phone costs. In the absence of an overall policy framework, departments have developed their own policies which led to an inconsistent approach.

Because the State lacks a statewide policy and we noted a variety of practices at state organizations, we researched policies and guidelines in place for the 15 WSCA $^{14}$ states. Many had statewide policies and required state organizations to adopt and document policies and procedures related to cell phones.

See Figure 2 for a list of common cell phone policies at the WSCA states.

Figure 2: Common Cell Phone Policies at WSCA States

## Common WSCA State Cell Phone Policies

- Criteria for determination of business need
- Consideration of cost effectiveness in plan selection
- Managerial authorization of cell phone issuance
- Periodic review of continued need and usage
- User cell phone agreements (acceptable use and/or acknowledgement of policies)
- Requirement for state organizations to document policies and procedures

Without consistent cell phone management practices and continuous monitoring of cell phone use, the State risks paying for cell phones that are not needed. Statewide guidelines such as those used by many WSCA states could help Vermont state entities address gaps in their cell phone management practices and reduce this risk.

[^9]
## Objective 2: Terminating Some Cell Phones and Better Matching of Service Plans to Actual Use Would Result in Reduced Cost

In calendar year 2012, state organizations had 3,080 cell phones with AT\&T and Verizon. Over 5,100,000 voice minutes (greater than 85,000 hours) purchased in monthly service plans for these phones went unused. In addition, of the $2,899^{15}$ cell phones with bundled voice and data service plans, 42 percent used no data or less than $25,000 \mathrm{~KB}$ of data. ${ }^{16}$ This underutilization of the services (voice minutes and data) purchased for cell phones indicates the potential for savings. We considered two approaches to identify potential savings. First, we assumed that some or all cell phones with no-use and limited-use (see Tables 2 and 3 ) could be eliminated statewide. Based on 2012 costs, if all no-use and limited-use phones were eliminated, this could yield savings of approximately $\$ 272,000$.

Alternatively, we analyzed potential savings for five of 115 cell phone pools used by the State to share voice minutes among multiple cell phones within cell phone accounts. In our analysis, we calculated the combined savings that could result from 1) eliminating no-use and limited-use cell phones and 2) switching to lower cost monthly service plans that more closely reflect actual usage. This resulted in potential savings of approximately $\$ 68,000$ for four of the five pools - $\$ 51,000$ by eliminating phones and $\$ 17,000$ by switching service plans.

## Elimination of No-Use and Limited-Use Phones Statewide

As we noted previously, 29 percent of cell phones had no or limited voice and data usage. Based on explanations obtained for no-use and limited-use phones from five state organizations, ${ }^{17}$ some used cell phones intermittently, consistent with the intended use (e.g., emergency response), while others explained that underused phones were overlooked and needed to be cancelled or there was no longer a business need for certain cell phones. Given our findings that these organizations did not consistently define business need or monitor cell phone usage levels, the cell phones in these categories warrant review and possible elimination. If all state organizations review their no-use and limited-use cell phones and determine some or all could be eliminated,

[^10]based on 2012 costs, savings overall could be up to about $\$ 272,000$. (See Appendices III and IV for listings of no-use and limited-use cell phones by state entity.)

## Calculation of Savings at Five State Organizations

Many state entities manage voice minutes via cell phone pools to avoid overage charges associated with exceeding monthly voice minute allowances (generally, service plans limit voice minutes). Cell phone pools enable sharing of voice minutes purchased for each cell phone among all cell phones within a pool.

The State had 115 cell phone pools in $2012^{18}$ and these pools purchased a total of approximately $11,000,000$ voice minutes. Of this total, 47 percent were not used. Over half of the unused voice minutes were in 62 pools managed by the five state entities.

See Table 4 for cell phone pool data, including unused minutes in 2012, for the five organizations.

Table 4: Cell Phone Pools Data for the Five Selected Organizations

| State Entity | Total <br> Pools | Total Cell <br> Phones $^{\mathbf{a}}$ | Annual Unused <br> Voice Minutes |
| :--- | :---: | ---: | ---: |
| ANR | 7 | 437 | 551,459 |
| AOT | 37 | 463 | 798,048 |
| DCF | 12 | 476 | $1,017,988$ |
| DPS | 2 | 304 | 429,312 |
| DII | 4 | 73 | 127,598 |
| Total | $\mathbf{6 2}$ | $\mathbf{1 , 7 5 3}$ | $\mathbf{2 , 9 2 4 , 4 0 5}$ |

${ }^{\text {a }}$ The number of cell phones in the pools as of the end of calendar year 2012
Given the significant number of unused voice minutes, we assessed potential cost savings for a single cell phone pool for each of these entities. The five pools selected had $1,532,705$ unused voice minutes in 2012. For each pool, we calculated the savings from eliminating no-use and limited-use cell phones. In addition, we determined the savings potential that could result from switching cell phones with no data usage or less than 25,000 KB of data usage to voice-only plans and switching the remaining cell phones to the lowest voice minute plan available.

[^11]For purposes of the analysis, we assumed that all cell phones in the no-use and limited-use categories could be eliminated and that for those cell phones with higher voice use, but with no usage or less than $25,000 \mathrm{~KB}$ of data usage, the data feature was not necessary. In addition, we verified that eliminating certain cell phones and switching to lower voice minute plans would still leave sufficient voice minutes for pooling purposes (i.e., overage charges for exceeding pool voice minute allowances would not occur). Our analysis demonstrates that for four ${ }^{19}$ of the five pools, savings could be realized by eliminating some cell phones and switching others to lower cost plans.

See Table 5 for projected savings for each pool.
Table 5: Options to Achieve Potential Savings ${ }^{\text {a }}$ in Four Organizations

| Options | ANR Phones \# $\begin{gathered}\text { Potential } \\ \text { Savings }\end{gathered}$ |  | AOT Phones <br> Potential Savings |  | DCF Phones <br> \# $\begin{gathered}\text { Potential } \\ \text { Savings }\end{gathered}$ |  | DPS \# | Phones <br> Potential Savings | Total Potential Savings |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of phones in pool | 209 |  | 154 |  | 290 |  | 200 |  |  |
| Eliminate existing phones: |  |  |  |  |  |  |  |  |  |
| No-use phones | $\begin{gathered} 4 \\ 23 \end{gathered}$ | $\begin{aligned} & \$ 1,908 \\ & \$ 9,108 \end{aligned}$ | $\begin{aligned} & 14 \\ & 20 \end{aligned}$ | $\begin{aligned} & \$ 5,436 \\ & \$ 9,600 \end{aligned}$ | $\begin{aligned} & 10 \\ & 23 \end{aligned}$ | $\begin{array}{r} \$ 4,848 \\ \$ 13,020 \\ \hline \end{array}$ | $\begin{gathered} 8 \\ 10 \end{gathered}$ | $\begin{aligned} & \$ 3,468 \\ & \$ 3,936 \end{aligned}$ | $\begin{aligned} & \$ 15,660 \\ & \$ 35,664 \end{aligned}$ |
| Limited-use phones |  |  |  |  |  |  |  |  |  |
| Subtotal | \$11,016 |  | \$15,036 |  | \$17,868 |  | \$7,404 |  | \$51,324 |
| Change plans: |  |  |  |  |  |  |  |  |  |
| Voice-only plan | $2 \quad \$ 456$ |  | 8 | \$1,920 | 2 | \$456 | 20 \$4,800 |  | \$7,632 |
| Lowest minute plan | 64 | \$4,620 | 24 | \$2,016 | 6 | \$432 | 36 | \$2,256 | \$9,324 |
| Subtotal | \$5,076 |  | \$3,936 |  | \$888 |  |  | \$7,056 | \$16,956 |
| Total potential savings | \$16,092 |  | \$18,972 |  | \$18,756 |  | \$14,460 |  | \$68,280 |

${ }^{\text {a }}$ Projected savings are for 12 months, based on number of cell phones as of the end of 2012 and the monthly prices of cell phone plans applicable in 2013.

Our analysis focused on five of 115 cell phone pools. Given that the five pools represented approximately 30 percent of the total unused voice minutes in the 115 pools, it is likely that further savings would be identified by performing similar analyses for the remaining pools.

Eliminating no-use and limited-use cell phones and switching service plans reduces the number of unused voice minutes. However, we estimated that the number of unused voice minutes for the four pools presented in Table 5

[^12]would continue to range from approximately 7,900 to 29,900 per month even after these changes. To some extent, the State's ability to reduce unused voice minutes is restricted because the lowest voice minute allowance for voice and data plans are 400 and 300 voice minutes ${ }^{20}$ for Verizon and AT\&T, respectively. According to a BGS official, if some preferred options are not available through the current providers, some minor changes to the existing contracts might be possible, or BGS could seek additional vendors. Given that the master contracts are negotiated via WSCA and GSA, including pricing for various monthly service plans, it may not be possible for the State to negotiate lower cost plans under these contracts.

Both providers offer optimization reports (i.e. price plan analysis), ${ }^{21}$ designed to ensure that each cell phone subscriber is utilizing the most appropriate plan. However, most state-issued cell phones are managed in cell phone pools and according to account representatives at both providers, consideration of pooled voice minutes is something they do manually. See Appendix V for an example of an optimization report. The Verizon (GSA) contract does not explicitly require the company to provide optimization services. However, according to the Verizon account representative, state entities are informed about such services, generally at the time an account is set up. Further, Verizon customers may request a free price plan analysis with plan recommendations for cost savings and have it available within one to two weeks’ time. The current AT\&T (WSCA) contract requires AT\&T to provide quarterly optimization reports for each wireless/broadband service subscriber.

According to AOT personnel, one meeting has been held with the providers to review an optimization study and some changes were made to service plans as a result. None of the four other state entities whose policies we reviewed had obtained optimization reports from the providers. However, a couple described meeting or corresponding with providers to discuss possible efficiencies and optimization issues. Finally, one department was not aware of the optimization services option but now plans to have such discussions with providers.

Employment of optimization reports may assist cell phone account managers in other state organizations with timely recognition of cost savings options. By analyzing patterns of cell phone usage within the pooled cell phone

[^13]accounts and aligning cell phone plans with usage patterns, it is likely that the State would achieve cost savings.

## Observations Pertaining to Replacement of Telephone Land Lines with Cell Phones

During the conduct of the audit, it came to our attention that in 2012 ANR cancelled most of their telephone land lines and switched primarily to cell phones, in part because a comparative analysis prepared by agency personnel showed that cell phones would be less costly. In addition, a group of employees within AOT's operations division had switched primarily to cell phones and was serving as a pilot. According to AOT personnel, the agency intends to conduct a cost-benefit comparison, as well. We also heard from another state organization that replacement of phone land lines with cell phones was under consideration.

It is prudent for state organizations to consider opportunities for cost savings, however, these decisions and ANR's analysis appear to have occurred with no input from DII, which manages the State's current telecommunications infrastructure, ${ }^{22}$ or from the Secretary of the Agency of Administration (AOA), responsible for coordination of telecommunications initiatives among executive branch agencies, departments and offices. ${ }^{23}$

Once the DII Commissioner became aware that ANR had altered their telecommunications service, he obtained the comparative analysis prepared by the agency's personnel and asked his telecommunications staff to review it. The feedback provided by DII staff expressed concern regarding both the methodology and the accuracy of the data utilized in the analysis. For example, the staff pointed out that the average cost per minute used by the agency to estimate the cost of telephone land lines was overstated by $\$ 0.13$ ( $\$ 0.15$ per ANR versus $\$ 0.02$ per DII), which resulted in cell phones appearing more cost effective than land lines. ${ }^{24}$ This discrepancy points to the need for consultation with DII as the state's manager of telecommunications infrastructure. Further, the determination for a state entity to replace current telecommunications infrastructure with another system is the type of

[^14]initiative that would warrant the involvement of the Secretary of AOA and DII given these entities' statutory authority.

## Conclusion

Based on the results of our evaluation, about 29 percent of over 3,000 stateissued cell phones had no-use or limited-use in calendar year 2012. With cell phones becoming a common tool used by state employees to conduct business and annual expenditures related to cell phones exceeding \$1.6 million, it is critical for the State to ensure that state entities are uniformly guided in their cell phone management practices. The guidance, currently provided by DII and DHR, relates solely to the security and personal use aspects of cell phone usage. Additional statewide guidance is needed to provide state entities with a common policy framework related to cell phones. Such a framework would serve as a foundation for the development of entityspecific policies and procedures, including establishment of cell phone assignment criteria, monitoring and other aspects of cell phone management.

Opportunities exist for current cost savings related to cell phones, including elimination of no and/or limited use phones that are lacking business need. Based on 2012 costs, eliminating all of these phones could save up to $\$ 272,000$. Our detailed analysis of five of 115 cell phone pools estimated annual savings of about $\$ 68,000$ from eliminating no-use and limited-use phones and by switching some cell phones to monthly service plans that better align to usage patterns. State entities should take advantage of tools available at both cell phone providers to analyze cell phone utilization by their employees and the associated cost.

## Recommendations

We recommend that the Secretary of the Agency of Administration and the Commissioner of the Department of Information and Innovation work collaboratively to:

1. Develop a policy framework that addresses cell phone management, including: 1) determination of specific business need for cell phones and required supervisory approval, 2) monitoring usage to ensure that service plans match actual need, 3) periodic review of continuing business need, 4) determining frequency and types of cell phones that will be available for upgrades, and 5) monitoring of the accuracy of the billing charges.
2. Require that agencies and departments adopt and document policies and procedures that address all aspects contained in the State's policy framework.
3. Require consultation with DII and the Secretary of AOA regarding replacement of land lines with cell phones.

We recommend that the Commissioner of the Department of Buildings and General Services direct the Purchasing and Contracting Director to:

1. Seek to negotiate plans with both cell phone providers that offer lower voice minute plans at lower cost.
2. Specify that optimization services are required in the Verizon contract or contract addendum.

We recommend that the secretaries of ANR and AOT and the commissioners of DCF, DII and DPS direct personnel responsible for cell phone management to:

1. Eliminate no-use and limited-use cell phones to the extent they are not needed for emergency response, the safety of state employees or other important operational rationale.
2. Work with cell phone providers to periodically analyze cell phone usage patterns to identify whether alternative service plans would better align with user needs.

## Management's Comments

On October 29, 2013, the Secretary of the Agency of Administration provided a letter commenting on a draft of this report. According to the Secretary of Administration, in developing the response, the Agency collected and considered comments from the Department of Information and Innovation, the Agency of Natural Resources, the Department of Public Safety, the Agency of Transportation, and the Department for Children and Families. (Appendix VI contains a facsimile of the letter).

In accordance with 32 V.S.A. §163, we are also providing copies of this report to the Secretary of the Agency of Administration, Commissioner of the Department of Finance and Management, and the Department of Libraries. In
addition, the report will be made available at no charge on the State Auditor's web site, http://auditor.vermont.gov/.

## Appendix I

## Scope and Methodology

To address our two objectives we performed an analysis of the cell phone usage and cost data obtained from two major cell phone providers for calendar year 2012, surveyed State of Vermont entities about cell phone policies and procedures and compiled policies and procedures of WSCA member states. In addition, we met with officials at selected state entities to inquire of practices and review policies related to cell phone management. Finally, we analyzed usage information for five cell phone pools and estimated potential savings from terminating some cell phones and changing monthly service plans for other cell phones.

To gain an understanding of the framework related to cell phones within the State of Vermont, we reviewed state statutes on telecommunication and statewide policies established by DII and DHR, related to mobile device security and personal use of state-owned equipment. Also, we surveyed all state entities with payments to AT\&T and/or Verizon during calendar year 2012, inquiring about written policies, procedures or guidelines related to cell phones.

In planning our work with respect to the first objective we:

- obtained information from the Public Service Board regarding cell phone providers currently licensed in Vermont;
- analyzed payments to cell phone providers, obtained from the state VISION system, to determine the highest paid providers;
- obtained cell phone usage and cost data for the two highest paid cell phone providers - Verizon and AT\&T;
- spoke with representatives from both cell phone providers to gain an understanding of the type and format of information accumulated in their reports and currently available cell phone plans;
- performed detailed analysis of data provided by Verizon and AT\&T to categorize cell phones into levels of use.

In designing our approach to assess whether the cell phone providers' data was reliable, we considered the General Accountability Office's (GAO) Data Reliability Guide, which outlines a variety of approaches for data reliability assessment. Specifically, GAO's Data Reliability Guide outlines a variety of approaches to assessing the reliability of data, including performing data testing and tracing to and from source documentation. Data testing relates to applying logical tests to electronic data files, such as looking for duplicate records or values outside of a designated range. With respect to tracing to and from source documents, the GAO guide refers to tracing a random sample of data records to help determine whether the computer data accurately and completely reflect these documents.

## Appendix I

## Scope and Methodology

Consistent with this guidance, we gained an understanding of the data elements in the providers' files and the interrelationships among data elements and valid values through: 1) interviews of AT\&T and Verizon account managers and information technology personnel involved in data warehousing, specifically regarding how the information in the providers' systems is captured and maintained and 2) inquiries of AT\&T and Verizon personnel about whether they had knowledge of any issues with data reliability, including completeness, timeliness or accuracy of their data.

Further, we:

1) scanned provider files for obvious errors (e.g., alpha characters in date or numerical fields, unexpected blanks in fields and garbled data),
2) tested relationships among the data elements (e.g. cross tabulated data fields that should add to the total billed amount per user phone), and
3) compared the total amounts paid per VISION to the amounts billed for calendar year 2012 per the providers' reports. ${ }^{25}$

Based on the results of these preliminary procedures, we determined that the single data file provided by AT\&T was not reliable. Specifically, we noted the following:

- Information was incomplete, and more than one-third of the records provided were missing "minutes total" information.
- 35 percent of all records provided (5,030 records) had multiple fields containing no values, except for "Not in Unified."

In addition, we compared data in the file from AT\&T to two invoices and noted that one invoice listed 41 cell phone users, but the AT\&T report had 21 cell phone users and the other invoice listed 123 cell phone users, while AT\&T report listed 79 users.

As an alternative to working with a single file provided by AT\&T, we obtained access to AT\&T's Premier web site and downloaded account reports, containing voice minutes of use, data usage and charges. Premier accumulates information for accounts that are registered for on-line access. However, not all state entities had such access enabled. As a result, we obtained information on voice minutes, data usage and charges information for state accounts that comprised 76 percent of the State's payments to AT\&T in calendar year 2012. We performed the same preliminary procedures for these reports, scanning the reports for obvious errors, testing relationships among the data points and comparing one month of amounts

[^15]
## Appendix I

## Scope and Methodology

billed for two accounts within one department to VISION payment information.

Because we had obtained a single data file from Verizon, we performed the following procedures:

- confirmed that all business accounts reported by state entities were included in the provider's data file,
- confirmed that all business accounts included in the provider's data files were for the state entities,
- compared a monthly amount billed per provider report to VISION payment data for one account.

Finally, we compared information from the reports obtained from Verizon and AT\&T to invoices obtained from state organizations. For each of the five state entities, ${ }^{26}$ we selected one account for each provider ( 10 cell phone accounts total) and compared detailed monthly voice minutes used, data usage and charges for each cell phone in the providers' reports to the information in invoices obtained from each of the five state entities. This totaled testing of 540 records. In addition, we verified with 10 users judgmentally selected from the category of moderate/high users within the five state entities that the detail of their phone calls for December 2012 appeared reasonable and that the data usage amounts reflected the level of usage that they recalled.

Based on the procedures performed, we concluded that the electronic files obtained from Verizon and AT\&T's Premier web site were sufficiently reliable for the purposes of conducting this audit.

We utilized IDEA, an automated data analysis tool, to analyze usage and charges information provided by Verizon and AT\&T in order to 1) calculate average monthly voice and data usage and 2) determine the number of cell phones with zero, limited and higher voice and data usage. To determine the criteria for these categories, we considered information available in industry and regulatory publications to provide context for actual usage by Vermont state employees. We determined the industry information was generally not relatable to state usage patterns primarily because industry and regulatory data presents information at a summary level. As a result, to develop the criteria for categories of usage we relied on our analysis of actual usage for state-issued cell phones and compared this to the most prevalent plan in use

[^16]
## Appendix I

## Scope and Methodology

by state employees. Our analysis resulted in frequency distribution tables for voice minutes of use and data use per month. These tables showed that approximately 53 percent of state employees with cell phones utilized on average more than 120 minutes and 56 percent of state employees with cell phones utilized on average more than $25,000 \mathrm{~KB}$ of data per month. We utilized the frequency distributions, considered that the most prevalent voice minute plan assigned to state employees was 400 voice minutes per month with unlimited data, and established the threshold for the limited use category below the averages.

In addition, we summarized the charges related to cell phones in each of the analyzed categories and followed up with selected state entities to obtain explanations for a sample of cell phones in the no-use and limited-use categories.

We interviewed personnel managing cell phones at 1) the four state entities with the highest payments to AT\&T and Verizon and 2) the state entity with statutory authority to provide direction and oversight for all activities directly related to information technology, including telecommunications services. We gained an understanding of the established practices at the five state entities related to assignment of cell phones, monitoring of usage and billing, and cancellation of cell phone lines.

For purposes of the second objective, we identified all cell phones managed in cell phone pools and utilizing IDEA assessed the extent to which the pools utilized voice minutes and data purchased in monthly service plans. Further, we performed detailed testing of five cell phone pools, identifying potential annual savings that could result from eliminating 1) no-use phones and limited-use phones, 2) switching phones with voice and data service plans, with no data usage or less than $25,000 \mathrm{~KB}$ data usage, to voice only plans, and 3) switching all remaining cell phones with high monthly voice plans to the lowest voice plan available.

Our audit fieldwork was performed from January to August 2013 and included site visits to state agencies and departments. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## Appendix II

## Abbreviations

| ANR | - Agency of Natural Resources |
| :--- | :--- |
| AOA | - Agency of Administration |
| AOT | - Agency of Transportation |
| BGS | - Department of Buildings and General Services |
| DCF | - Department for Children and Families |
| DHR | - Department of Human Resources |
| DII | - Department of Information and Innovation |
| DMV | - Department of Motor Vehicles |
| DPS | - Department of Public Safety |
| GAO | - General Accountability Office |
| GSA | - General Services Administration |
| KB | - Kilobyte |
| NASPO | - National Association of State Procurement Officials |
| WSCA | - Western States Contracting Alliance |

## Appendix III

## State-Issued No-Use Cell Phones

The cell phones listed below had zero voice and data usage during the months the phones were in existence in 2012. Periods of existence ranged from one month to twelve months.

## Table 6: The Number of No-Use Cell Phones by State Entity and Related Cost

| State Entity | Number of <br> Cell Phone <br> Accounts with <br> No-Use <br> Phones | Number of <br> No-Use <br> Phones | Total Cost |
| :--- | :---: | :---: | :---: |
| Department of Public Safety | 3 | 76 | $\$ 7,039$ |
| Agency of Natural Resources | 5 | 59 | $\$ 6,448$ |
| Department for Children and Families | 8 | 46 | $\$ 13,418$ |
| Agency of Transportation | 12 | 37 | $\$ 10,806$ |
| Department of Corrections | 4 | 18 | $\$ 4,199$ |
| Department of Aging and Independent Living | 5 | 14 | $\$ 795$ |
| Agency of Human Services Central Office | 1 | 11 | $\$ 958$ |
| Department of Vermont Health Access | 1 | 6 | $\$ 926$ |
| Department of Information and Innovation | 2 | 4 | $\$ 1,014$ |
| Department of Finance and Management | 1 | 3 | $\$ 1,105$ |
| Department of Housing and Community Development | 1 | 3 | $\$ 313$ |
| Department of Buildings and General Services | 1 | 2 | $\$ 624$ |
| Department of State's Attorneys and Sheriffs | 1 | 2 | $\$ 120$ |
| Department of Taxes | 1 | 1 | $\$ 604$ |
| Secretary of State | 1 | 1 | $\$ 369$ |
| Department of Health | 1 | 1 | $\$ 104$ |
| Vermont Lottery Commission | 1 | 1 | $\$ 84$ |
| Department of Labor | 1 | 1 | $\$ 35$ |
| Agency of Agriculture | 1 | 1 | $(\$ 27)^{\text {a }}$ |
| Total |  | $\mathbf{2 8 7}$ | $\$ 48,936^{\text {b }}$ |
| a <br> b Credit for a discontinued phone. <br> Numbers in the table do not foot due to rounding. |  |  |  |

## Appendix IV

## State-Issued Limited-Use Cell Phones

The cell phones listed below used on average less than 100 minutes of voice minutes and less than $25,000 \mathrm{~KB}$ of data a month during their existence in 2012. The period of time the phones were in existence ranged from one to twelve months.

Table 7: The Number of Limited-Use Cell Phones by State Entity and Related Cost

| State Entity | Number of Cell <br> Phone Accounts <br> with Limited-Use <br> Phones | Number of <br> Limited-Use <br> Phones | Total Cost |
| :--- | :---: | :---: | :---: |
| Agency of Natural Resources | 6 | 136 | $\$ 38,578$ |
| Agency of Transportation | 25 | 92 | $\$ 32,698$ |
| Department of Corrections | 8 | 71 | $\$ 25,536$ |
| Department for Children and Families | 9 | 68 | $\$ 34,643$ |
| Department of Public Safety | 3 | 61 | $\$ 16,781$ |
| Department of Health | 1 | 38 | $\$ 22,652$ |
| Department of Aging and Independent Living | 11 | 37 | $\$ 13,832$ |
| Department of Buildings and General Services | 3 | 16 | $\$ 6,266$ |
| Department of Vermont Health Access | 1 | 11 | $\$ 2,414$ |
| Department of Labor | 1 | 10 | $\$ 3,343$ |
| Agency of Agriculture | 1 | 10 | $\$ 3,307$ |
| Agency of Human Services Central Office | 1 | 8 | $\$ 2,057$ |
| Department of Housing and Community Development | 1 | 7 | $\$ 3,234$ |
| Department of State's Attorneys and Sheriffs | 1 | 7 | $\$ 1,936$ |
| Vermont Lottery Commission | 1 | 6 | $\$ 3,310$ |
| Department of Liquor Control | 1 | 5 | $\$ 2,653$ |
| Department of Human Resources | 1 | 5 | $\$ 2,280$ |
| Secretary of State | 1 | 5 | $\$ 1,985$ |
| Department of Information and Innovation | 2 | 3 | $\$ 776$ |
| Public Service Board | 1 | 2 | $\$ 1,224$ |
| Military Department | 1 | 2 | $\$ 1,017$ |
| Department of Finance and Management | 1 | 2 | $\$ 978$ |
| Enhanced 911 Board | 2 | 2 | $\$ 348$ |
| Department of Libraries | 1 | 1 | $\$ 810$ |
| Department of Veterans Affairs | 1 | 1 | $\$ 325$ |
| Governor's Executive Office | 1 | 1 | $\$ 252$ |
| Department of Tourism and Marketing | 1 | 1 | $\$ 188$ |
| Total | $\mathbf{1}$ | $\mathbf{6 0 8}$ | $\$ 223,424^{\text {a }}$ |

[^17]Appendix V

## Optimization Report

Optimization Report

Definitions:
A - "Airtime Amount" is an amount charged in addition to a monthly recurring service charge for
voice minutes used in excess of a monthly voice minutes allotment.
B - "Peak Minutes Used" are voice minutes used during peak hours (Monday through Friday
from 6 a.m. to $8: 59$ p.m.). These voice minutes are counted against plan allotments of voice
minutes for an individual cell phone or within a cell phone pool. An excess of peak minutes used
over plan allotments of voice minutes is billed as an overage.
C - "Off Peak Minutes Used" are voice minutes used during off peak hours (Monday through
Friday from 9 p.m. to $5: 59$ a.m. and weekends). Off peak minutes used are not counted against
monthly plan allotments of voice minutes.

## Appendix VI

## Response of the Secretary of the Agency of Administration



October 29, 2013

Douglas Hoffer
State Auditor
Officer of the State Auditor
132 State Street
Montpelier, VT 05633
Dear Vermont State Auditor Hoffer:
The Agency of Administration (AoA) respectfully submits our response to the draft audit report on StateIssued Cell Phones. We have been looking forward to the report with the intent of using it to establish a comprehensive statewide policy framework that governs the purchase, acceptable usage and management of not only cellular devices - cell phones, smart phones, and cellular enabled iPads and tablets for the executive branch of Vermont state government, but also for statewide landline use as well.

The AoA and the audited agencies and departments collectively agree with the auditor's recommendations and our course of action is enclosed. We collected and considered comments from the Department of Information and Innovation, the Agency of Natural Resources, the Department of Public Safety, the Agency of Transportation, and the Department for Children and Families, all of which have informed our response and helped in developing our recommended course of action.

Our intentions are to finalize, issue and implement the statewide telephony (landline and cellular device) policies by March 1, 2014.

We appreciate the efforts of your office and all those contributing to this valuable report.

cc: Michael Clasen, Deputy Secretary, Agency of Administration Sue Zeller, Chief Performance Officer, Agency of Administration Paul Rousseau, Chief Financial Officer, Agency of Administration

## Appendix VI

## Response of the Secretary of the Agency of Administration

## Agency of Administration Response to Cell Phone Audit Findings

## Audit Report Recommendations:

1. Develop a policy framework that addresses cell phone management, including: determination of specific business need for cell phones and required supervisory approval, monitoring usage to ensure that service plans match actual need, periodic review of continuing business need, determining frequency and types of cell phones that will be available for upgrades, and monitoring of the accuracy of the billing charges.
2. Require that agencies and departments adopt and document policies and procedures that address all aspects contained in the State's policy framework.
3. Require consultation with DII and the Secretary of AOA regarding replacement of land lines with cell phones.
4. Seek to negotiate plans with both cell phone providers that offer lower voice minute plans at lower cost.
5. Specify that optimization services are required in cell phone providers' contracts or contract addendums.
6. Eliminate no-use and limited-use cell phones to the extent they are not needed for emergency response, the safety of State employees or other important operational rationale.
7. Work with cell phone providers to periodically analyze cell phone usage patterns to identify whether alternative service plans would better align with user needs.

## Administration Response:

The Agency of Administration will develop a comprehensive statewide policy framework that will govern the procurement and use of mobile devices for the Executive Branch of Vermont State Government. Our intentions are to finalize, issue and implement the statewide telephony (landline and cellular device) policies by March 1, 2014. This framework will include the following statewide policies and procedures:

- Policies that address the security of mobile devices are already defined in the existing Mobile Device Policy and will be redistributed to ensure compliance.
- Procurement Policies
- Development of standard criteria for determining the business need for issuance of a State provided cellular mobile device, that may include the following:
- The employee requires a cell phone for COOP or for safety reasons
- The employee provides On Call, Stand By or other business required after hours support requiring mobile communications
- As part of their job, the employee requires frequent travel during which there is a need for timely communications
- The employee has an approved alternative working situation (working from home) that requires a dedicated line of communications
- The primary duty location of the employee does not have land lines available


## Appendix VI

## Response of the Secretary of the Agency of Administration

- There is an alternative business rationale that has been approved by the Secretary of Administration
- Approval to purchase State cellular devices will be limited to appropriate managers within each agency to ensure compliance with guidelines
- Criteria for the purchase of a Smart Phone versus a traditional cellphone may consist of the following
- Determine whether the employee requires mobile access to State data as part of their daily job
- Determine if the employee's regular duty location does not provide access to the State network
- Criteria for the purchase of a cellular enabled iPad or other tablet device
- A cellular plan should not be purchased with an iPad or other tablet devices if the primary purpose of the device is usage where State wifi service is available or if the employee already has a state issued cellular device (Smart Phone) capable of sharing cellular access (wifi "hot spot")
- Determination of supported models of cellular mobile devices
- DII will provide a list of acceptable cellular mobile devices (Smart Phones, iPads, tablets) for purchase under existing statewide contracts
- Determination of the frequency of cellular device replacement
- Mobile cellular devices are not to be replaced (upgraded) for a minimum of two years
- Broken or lost devices will be replaced with similar devices for the remaining life span of the original device
- Individual cellular phones are to be provisioned within a shared use plan with monthly call minutes consistent with the other devices in the plan
- The State will seek to negotiate favorable contracts with cellular providers to meet the State's requirements (discounts, plans that allow lower minimums than are currently available)
- Usage policies to include the following:
- State issued cellular devices are intended to be used for State business
- Limited personal use of a State cellphone is allowed and not to be abused
- Usage will be monitored by managers to assess potential abuse and the continued requirement to require the State device
- Annual assessment of the shared use plans to ensure alignment with business needs
- While optimization services are currently available from each of the State's cellular vendors, we will explore opportunities to further leverage additional savings. In addition, BGS will provide better communication for end users and clearly identify the optimization services available under contract with providers


## Appendix VI

## Response of the Secretary of the Agency of Administration

- At least annual monitoring of the appropriateness and requirements for cellular devices within the statewide policies
- An assessment of the continuing need for and possible elimination of nouse and limited-use devices

To ensure effective use of State telephony, land line usage must be considered and reviewed.

- DII will conduct an analysis of current land line usage with the goal to eliminate unnecessary phone lines and reduce State costs
- DII will work with telephony providers to identify phone lines that are currently not actively being used
- Options to consolidate phone lines (the sharing of a single phone line for a desk phone and a conference phone located within the same office) will be evaluated
- On an annual basis, agencies will be provided with lists of phone lines that are candidates for removal for them to determine which lines are still required


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[^1]:    1 Total State payments to AT\&T and Verizon processed in VISION (the State's financial management system) in calendar year 2012.
    2 Cell phone usage may encompass either use of voice minutes or use of voice minutes and data. Data use results from activities such as accessing the web, sending emails and text messaging.

    3 Premier accumulates information such as voice minutes of use for cell phone accounts that have been registered for on-line account management.
    4 The AT\&T data was available only for 76 percent of the State payments to AT\&T, as not all state organizations with AT\&T accounts were signed up for Premier on-line account management.

[^2]:    5 Data files obtained from the providers included usage and cost information for cell phones and for other mobile devices, such as aircards, iPads, etc. Only cell phones were included in the scope of the audit.

[^3]:    $6 \quad 181$ phones had voice-only service plans with no data plan.

[^4]:    7 During 2012, the member states were Alaska, Arizona, California, Colorado, Hawaii, Idaho, Minnesota, Montana, Nevada, New Mexico, Oregon, South Dakota, Utah, Washington and Wyoming.
    8 Effective January 1, 2013, NASPO commenced operating a subsidiary entity, the WSCA-NASPO Cooperative Purchasing Organization, LLC. WSCA-NASPO is a nationally-focused cooperative purchasing program formed to leverage the collective expertise and experience of WSCA and NASPO.

[^5]:    9 Some cell phone plans are not designed to share minutes such as Verizon's "anytime" plans or AT\&T's "individual" plans.

[^6]:    10 See Scope and Methodology section for derivation of "limited-use" measure.
    11 Verizon provided our office with a single electronic file containing records for all state-issued cell phones with a Verizon service plan in 2012. AT\&T was unable to provide our office with a single electronic file with reliable data for cell phones with AT\&T service plans. However, data was available for state entities that had registered for on-line account services and these cell phones accounted for 76 percent of the payments to AT\&T in 2012.

[^7]:    1222 V.S.A. §901(1).

[^8]:    13 Roaming charges are generally incurred for services originated or received while outside a cell phone plan's included coverage area.

[^9]:    14 These are the states that were members of WSCA prior to 2013 when the organization became WSCA-NASPO Cooperative Purchasing Organization, LLC.

[^10]:    15181 phones had voice-only service plans with no data plan.
    16680 cell phones used no data and an additional 545 used some data, but less than $25,000 \mathrm{~KB}$ per month.

    17 The five entities - ANR, AOT, DCF, DPS and DII - comprised 65\% of total 2012 cell phone costs.

[^11]:    18 Ninety-six percent of cell phones were managed in cell phone pools in 2012.

[^12]:    19 The pool selected for DII did not contain any no-use or limited-use cell phones.

[^13]:    20 AT\&T indicated that voice and data plans with the lower voice allowances are available but at the higher than discounted bundled prices.
    ${ }^{21}$ Optimization analysis identifies users who consistently incur overage charges, and therefore should move to a more cost-effective plan, or users who consistently under-utilize a plan, and therefore should move to a lower cost plan.

[^14]:    2222 V.S.A. 901(1) authorizes DII to provide direction and oversight for all activities directly related to information technology, including telecommunications services.
    23 3 V.S.A. 2222b (a).
    24 ANR indicated that their average cost was based on information available on DII's website at the time the analysis was performed.

[^15]:    25 For AT\&T the comparison is done to the information downloaded from Premier web site.

[^16]:    26 The five state entities were selected based on 1) the highest payments to AT\&T and Verizon in calendar year 2012 (ANR, AOT, DCF and DPS) and 2) the statutory authority related to information technology, including telecommunication services (DII).

[^17]:    ${ }^{\text {a }}$ Numbers in the table do not foot due to rounding.

