



Ultimate Guide to Invoice Optimization

Wireless billing practices are prone to gaps resulting in invoices that are greater than they should be. When dealing with the challenges of today's uncontrolled and undisciplined wireless environments, the first step should be to identify the most obvious overspending problems. A focus on minimizing carrier invoices is a good first step because it: 1) requires minimal organizational coordination and training to achieve, 2) generates immediate savings (in less than three months) and 3) represents a significant percentage of the overall hard savings opportunities available through a comprehensive wireless management practice.

In our methodology we recommend three distinct activities to uncover significant savings:

- Optimization of Plans & Features
- Elimination of Unneeded Devices & Features
- Removal & Crediting of Billing Errors

While some organizations are doing a reasonably good job at managing wireless costs, even among the most diligent, there are real opportunities to find additional savings. It is rare for a company to have full control over their wireless environment and be capitalizing on every potential savings opportunity. Below are descriptions of the three activities that represent a comprehensive and proven way to produce significant returns.

Step 1: Optimization of Plans & Features

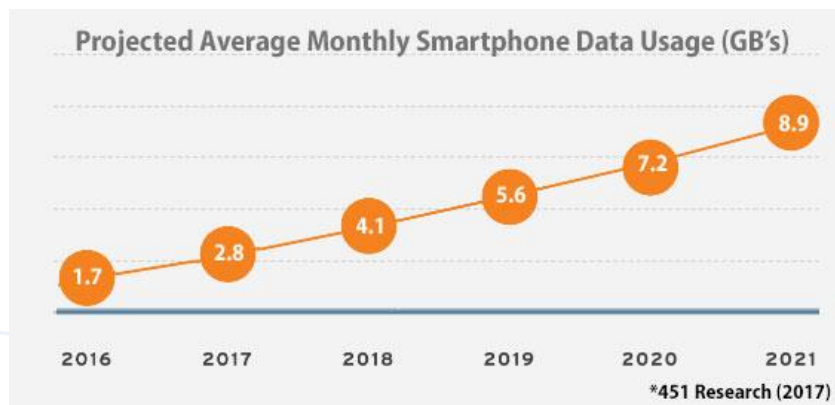
1) Isn't the carrier looking out for me?

Carrier rate complexities are a function of competitive pressure compounded by complicated and inflexible billing systems. The complexity facilitates some overpayment scenarios but to astute wireless administrators, it can also be the source of savings that carriers may or may not have anticipated. The behavior of carrier account teams is controlled and influenced by their individual compensation plans. While they typically possess some measurement associated with client satisfaction, their financial motivators are predominantly revenue based. Compensation plans are focused on recurring charges, not on overages. Overages don't improve their paycheck and it will only serve to stir up client dissatisfaction. Effective account reps that recognize the good that comes from satisfied clients may have the best intentions in helping to manage client invoices through periodic optimization suggestions, but they have little time and are ill-equipped to consistently accomplish that objective.

For account representatives, there is more money to be made by increasing your device count than is lost by reducing a device's access fee. Your representative loves activations and loathes terminations. If you are savvy enough to know how to manage your bill at a minimum cost they are not going to get in your way. If you are unaware that you are paying slightly inflated fees, they will likely not be prompted to bring this to your attention unless it threatens to become a point of dissatisfaction.

2) *What the Transition from Voice to Data Means*

Over the past 18-24 months, all carriers have shifted their method of metering invoice costs from voice plans to data plans. These new data plans come with unlimited voice and messaging. The only usage that drives invoice cost in this new methodology is data usage. Carriers understand where growth is going to come from for example data usage, not voice usage. The average Smartphone data usage in 2012 was around 500MB/device. That has quadrupled in 4 years to 1.7GB/device. A recent 451 Research study projects that in the next 4 years we will reach an average of 8.9GB/device.



If you are currently still on voice pooling plans, carriers are motivated to move you to the latest data pooling offerings. Voice plans usually contained free night and weekend minutes which fostered a general indifference to how employees used their devices away from work. The rationale being that if there were no incremental carrier charges, it didn't matter how much usage the device incurred during these off-peak periods. However, be aware that there is no such thing as free off-peak data usage. Every GB consumed on an employee's smartphone, tablet or data card is counted against the pool.

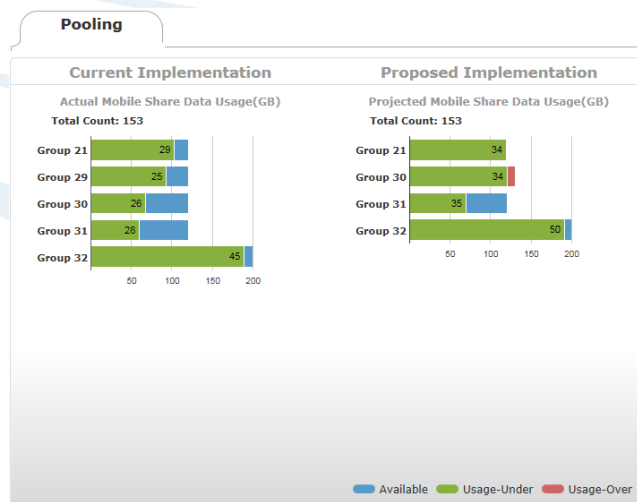
3) *Current Optimization Strategies*

There are two prevalent strategies when it comes to optimization, 1) periodic audits, and 2) disciplined monthly monitoring.

In a practice borrowed from wireline management, some companies take the view of only periodically assessing their cost effectiveness and this is done typically with a rear-view mirror mentality rather than forward looking. While periodic audits are a step better than just relying on your carrier to look after your monthly invoice, it will result in the least amount of savings of the three approaches and likely be the costliest. Typically, you engage outside consultants that bring expertise and tools to the audit process. The fundamental problem with the audit approach is that it represents a one-time course correction to a process that will immediately begin veering off course once the audit is complete. Given that wireless devices walk out the door of your business each night with the meter running, there are many more ways

for wireless invoices to spiral out of control than with wireline invoices. This is even more noticeable with data-centric billing plans. An audit can be effective in finding past billing discrepancies and in locating current optimization savings. However, it does not address the recurring causes of overpayment on an ongoing monthly basis.

Disciplined monthly monitoring provides the most effective approach to ensuring minimized carrier bills. This includes either a technology solution that uploads and analyzes your invoice monthly or engaging an expert with tools to analyze your invoice monthly. The key decision point is the cost of this service and time. Consultative offerings that rely heavily on personnel will be more expensive while highly automated solutions are going to offer the best price point and expedience. Tackling this problem with in-house resources will typically only work up to a certain count of devices after which it becomes apparent that some amount of automation is required. Once a company engages their own in-house tool development, they are likely to find this an expensive distraction given the modest pricing available today for Cloud or SaaS (Software as a Service) wireless management solutions. Why? Because strong automated solutions can generate 2-3 times their cost in returned savings and offer the ability to more accurately forecast future pool requirements based on a combination of historical data trends and forecasting models. These types of solutions can test scenarios thoroughly and accurately to suggest minimum cost models. In cases where data pools have device count limits, it is often necessary to shift devices between pools in order to maintain the lowest overall cost of pooling. Below is an example of how automation can assist in this pool optimization process.



4) Pooling Best Practice

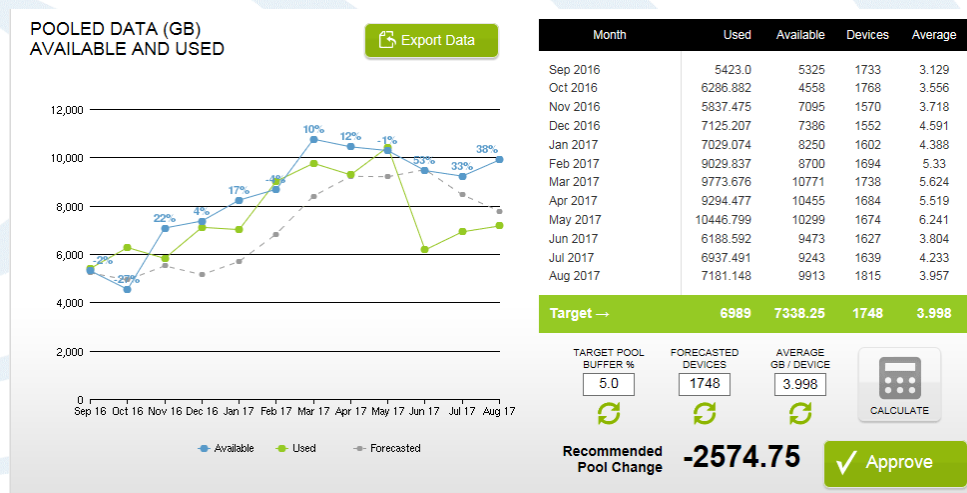
Today there are two prominent data pooling methodologies. For some carriers, you only have one choice. One type of pooling is what we call Group Share. In this case a limited number of devices are permitted in a group and the total data available is allocated in a single lump sum approach. This pooling model is an outgrowth of consumer oriented family plans. This is where price competition is the most acute between carriers because they target the sweet spot of 10 or few devices. As companies found these to be better than business-oriented rate plans, the carriers were forced to react to each other by adding increasing large device limits from 25 to 50 and eventually to 100. However, the early enthusiasm by carriers for

growing the Group Share type pools has diminished leading to newer caps that keep pool sizes under 50 and in some cases no larger than 25. In lower device counts scenarios, this model will often be the least expensive but becomes complicated to manage and more expensive in higher device count configurations because it typically requires shifting of devices between pool groups and in some cases, changing them between billing accounts to remain optimized.

The second model we call DataPlus. In this model, there is no limit to the number of devices pooled and each device in the pool contributes GBs to the overall pool available amount. This model is more accommodating to large device configurations. It is significantly easier to manage a data pool when there are no restrictions on the number of devices in the pool. These pool models also offer a much more granular approach to setting and resizing pool levels. Where Group Share quantities come in large increments such as 50GB – 100GB choices for increasing or decreasing the pool size, DataPlus plans can grow or shrink in 3GB to 5GB chunks thus offering the ability to be much more precise in setting projected pool needs. However, the economics favor Group Share pools in instances where smaller device counts exist because of the more competitive nature of the consumer marketplace.

5) Forecasting Data Pool Levels

While there is a penalty applied to data pool overruns, at 50% it is much less egregious than the older voice pools where premium charges of 300- 400% were not uncommon. It was very painful with the older voice plans to undershoot when a cost/minute of overage minutes could be \$0.35 to \$0.40 versus sub \$0.10 in the base rate plans. Therefore, in forecasting data pool levels, you don't need to overstock the pools with high buffers. In fact, some small infrequent overage charges can actually be an indicator that you also aren't consistently paying the carrier for large amounts of unused data each month. One of the bigger issues around data pooling is the cost of unused data each month. Carriers are happy to suggest you cautiously set your data buffers such that you won't ever see overage charges. Playing on the fears of high voice overage, too many customers buy into the theory of setting a high buffer and then not having to manage it monthly.



6) Month End Real Time Pool Calibration

Carriers now make reporting available to see month-to-date usage. This enables astute telecom managers to add or remove blocks of available data to ensure there is no overage as well as to minimize the amount of data left unused at the end of the month. This is possible because carriers view the monthly usage in totality at the time the bill cycle closes and not day to day. Retroactive adjustments can be used effectively to keep cost as the absolute minimum.

7) International Feature Optimization

While the largest savings opportunities in monthly optimization might typically result from careful data buffer management, sometimes international feature optimization is given less attention than it deserves but still offers the potential for sizeable savings. The advent of no cost daily international feature bundles that do not incur cost until the device is detected to be roaming internationally has simplified the task of optimizing international features. These 'Day' use features should typically be your default choice but for consistently high international usage, it is better to purchase large international data and messaging features rather than rely on day-to-day feature types.

With international features, carriers are now bundling multiple features together in a single package such as data, voice and messaging. It requires an understanding of all three usage dimensions to evaluate whether or not a feature bundle is the optimal choice. Bundles may not be the best option where most usage is coming from one of the three features bundled.

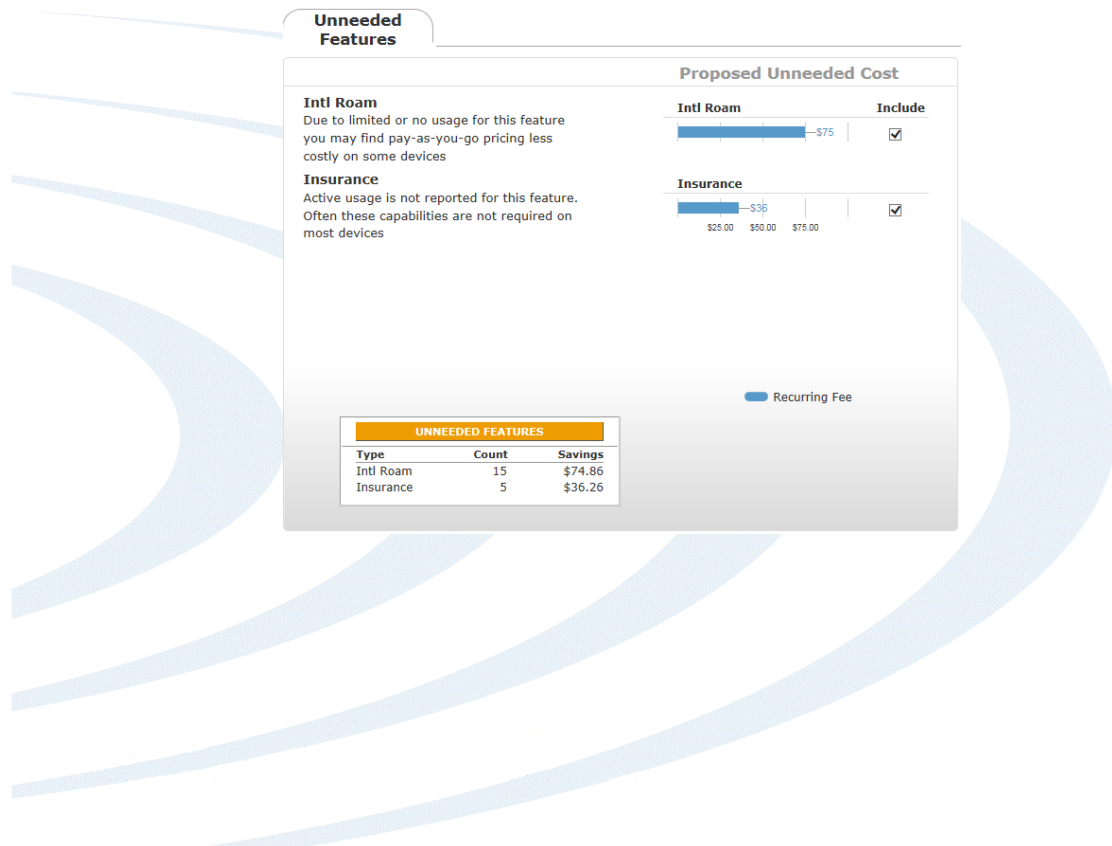


Step 2: Elimination of Unneeded Devices & Features

1) Feature Elimination

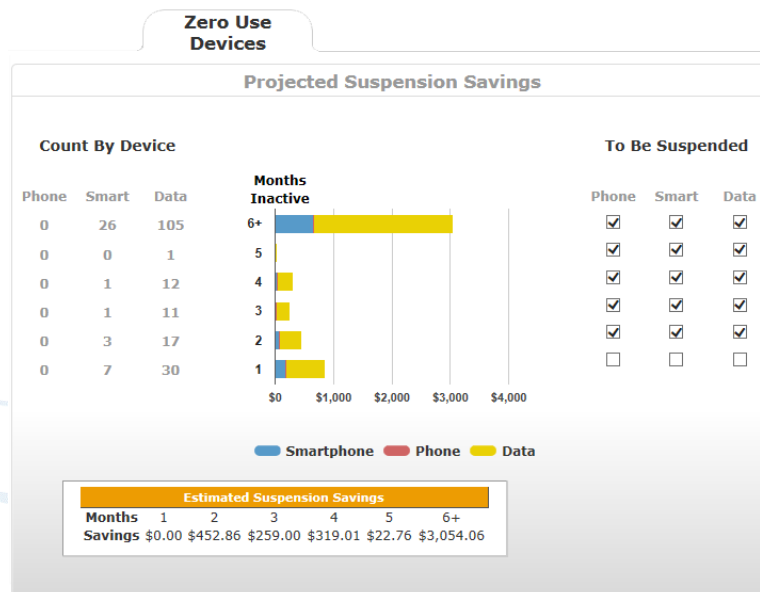
Due to the size and unexpected nature of overages they can become a consuming focus of optimization. However, there are significant savings to be found by eliminating unneeded devices and features. Finding ways to avoid disruptive consequences to end users can be challenging while still finding the low-hanging cost savings opportunities.

When choosing to eliminate a feature or to terminate a device, there needs to be a longer and more measured approach than feature quantity adjustments. It is a no brainer to increase a feature size when overages occur but reducing or eliminating that feature due to the lack of usage can cause trepidation. While confirming with users first is always a good idea, it may not always be practical. It is useful to permit different time frames applied to different feature types when scanning for unneeded feature suggestions. International text features might become candidates for elimination with as few as one to two months of inactivity while data features may need a longer evaluation period. While data, messaging, and international features comprise the obvious choices to monitor for feature elimination you should also make it a practice to monitor non-usage based recurring charges such as insurance, roadside assistance, or navigation.



2) Device Suspension/Termination

Tracking and terminating unneeded phones, tablets and data cards can represent a significant savings opportunity, particularly in a turbulent economy with a high personnel turnover. The challenge here is having certainty that all dimensions of usage inactivity are verified (voice, data, messaging, and radio). With a monthly automated solution, this process becomes simple and efficient. The first task is to compile the number of consecutive zero use months for those devices. This will require historical tracking. Next, you will want a methodology for labeling standby or emergency devices so they won't clutter the report or be inadvertently terminated.



Approaches for device termination can range from aggressive to more cautious. The more aggressive stance is to accept some push back from a few inadvertent disruptions to employees. This solution would be to terminate devices that exceed a defined threshold of months inactive and be prepared to reactivate some percentage of these devices when end-users find their devices no longer working. The more cautious approach is to engage a 'step-down' methodology. Waiting for management verification prior to termination can be frustratingly slow. First placing an inactive device on a suspended/vacation plan for a period of time before terminating service out right can guarantee the phone number is preserved on that device. Restricted usage is best in these cases so that large overages don't occur upon sudden reuse. This is where the device will not work and the employee will have to take action to re-enable the functions. Unrestricted standby can result in significant overage charges when it suddenly comes into use. Carriers can typically restore the same number to use if identified quickly but this may not be the case if 30 days have lapsed since the termination.

Step 3: Removal & Crediting of Billing Errors

Activations and changes of wireless plans and features are predominantly accomplished via manual keystrokes. Where there is manual intervention there is opportunity for error. Unfortunately, carrier applications used to perform these tasks don't always complete the simple validation checks you would hope for and there are sometimes inaccuracies lying dormant in their systems triggered through certain transactions. Errors on carrier invoices typically fall into one of the following six categories:

- 1) **Inaccurate Discounts** – discounts can be missing entirely on a plan/feature or the wrong discount might be attached to a device or feature. In some cases, the carrier will offer a different discount on data plans than on voice plans creating more opportunity for confusion. Unfortunately, scrubbing your bill once to ensure everything is discounted correctly is not a guarantee that inaccurate discounts won't occur on future invoices.

Carrier	Master Account	Device	Plan	Code	Voice Disc %	Data Disc %	Plan List	Data Plan List	Actual Discount	Expected Voice Discount
Verizon	XXXXXXXX-00001	646-555-4364	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	646-555-3829	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	646-555-7108	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	619-555-9317	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	619-555-4694	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	619-555-2145	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	617-555-3266	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	617-555-3266	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	617-555-2518	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	617-555-8418	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	617-555-7122	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60
Verizon	XXXXXXXX-00001	617-555-8275	CUSTOM FLEXIBLE BUSINESS 2GB \$60.00	FBSMT2GBC	0.21	0.21	\$60.00	\$0.00	\$9.00	\$12.60

- 2) **Fee Overcharges** – a plan might have been miscoded in the carrier portal yielding an incorrect access charge or an expected credit may be omitted. It is not uncommon to find that features are double coded on a device. You might find instances where a BlackBerry and Smart Phone option both exist on a device representing a duplicate charge. There can also be instances where a new feature is added and the old one is not deleted. There may also be plans or features on older codes still billing at higher rates when you've negotiated a better rate.

- 3) **Neglected Terminations** – some carriers only terminate at the end of the bill cycle and others will initiate a termination mid cycle. Tracking terminations can be a challenge. Do not assume because you've submitted the request that it will naturally happen. Through automation one can tag devices when they are submitted for termination and then flag them on subsequent invoices if they continue to bill. When porting from one carrier to another, occasionally the old carrier billing persists creating a situation where you are double paying over a period of time. Because these charges appear on separate invoices they are more difficult to spot.

Device	Carrier	Status	Carrier Confirmation	Term Submit Date	Invoice Count	Days Billed After Term	Last Invoice	Total Billed After Term	Contract End Date	Termination Charges
954-555-4325	Verizon	Released	VZB680801458	2017-04-25	3	107	2017-08-10	170.39	2018-03-07	0.0
352-555-9540	Verizon	Terminated		2017-07-06	1	35	2017-08-10	134.28	2018-03-07	190.0
973-555-7671	ATT	Terminated		2017-05-02	2	79	2017-08-03	77.28	2017-04-16	0.0
312-555-6447	Verizon	Terminated		2017-06-12	1	58	2017-08-09	62.27		0.0
424-555-6447	Verizon	Terminated	MB706320710	2017-06-12	1	58	2017-08-09	57.67		0.0
617-555-0126	Verizon	Terminated		2017-06-12	1	58	2017-08-09	56.53		0.0
617-555-7536	Verizon	Terminated		2017-06-12	1	58	2017-08-09	56.53		0.0
202-555-0802	Verizon	Terminated		2017-06-12	1	58	2017-08-09	56.53		0.0



Missed Credits – your contract may offer a waiver of certain fees such as termination and /or activation. Just because it is in your contract doesn't ensure that the credit appears in every instance. It is useful to have a method for monitoring these waived fees to ensure that the appropriate credit appears.

- 4) **Incorrect Tax Application** – there continues to be cases where invoices are coded incorrectly for taxes or where taxes are charged where they should not be.
- 5) **Neglected Plan Changes** – when submitting a batch of plan or feature changes you will want a mechanism for verifying they were processed in a timely and correct fashion. Omitted optimization changes can cause overages to persist and can disrupt pooling buffers.

All of these situations above will be credited by carriers with adequate documentation. When identified, carriers rarely resist applying credits to your invoice. However, if your documentation trail is suspect or if you are requesting credits for errors that extend beyond six months, expect to meet resistance from your provider.

As technology continues to advance so will the demand for more data usage. To keep costs in check, it starts with choosing the most cost-effect pooling strategy. An effective cost management solution will not only highlight the best pooling strategy for your organization but will automate asset ownership and tracking, increase management control and oversight as well as instill employee accountability making an overall contribution to your savings opportunity. The time to act is now. Contact MobilSense today at info@mobilsense.com or visit our website at mobilsense.com.

