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TUAW

Steve Sande and Erica Sadun

Taking Your iPhone 4 to the Max



Steve Sande
Erica Sadun

Apress®

Taking Your iPhone 4 to the Max

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To my wife, Barb, for being by my side as I realize my dreams.

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Steve Sande has been a loyal fan of Apple technology since buying his first Mac in 1984. Originally trained as a civil engineer, Steve's career as an IT professional blossomed in the 1990s. A longtime blogger, Steve is an editor at The Unofficial Apple Weblog (TUAW.com), the author of three books about Apple's iWeb application, and a collaborator on the recent Apress title *Taking Your iPad to the Max*. Steve is certified as an Apple Certified Technical Consultant and is the founder and owner of Raven Solutions, LLC, a company specializing in support and system consulting for Apple devices. He lives with his wife of 31 years and an aging (but feisty) cat in Highlands Ranch, Colorado.

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Introduction

Before the iPhone, every smartphone on the market had a little screen, a tiny thumb keyboard, and a user interface that confused even the experts. Then, in June of 2007, everything changed.

In the three years since the introduction of the first iPhone, we've seen a tremendous change in the way that people work with smartphones and computing devices in general. Most smartphones have emulated the touch screen and gesture-based user interface of the iPhone in an attempt to cash in on the success of the device. It's estimated that Apple has sold more than 100 million iOS devices (which includes the iPhone, the iPod touch, and the iPad), making the platform a roaring success.

But the iPhone has continued to evolve in those three years. In 2008, the iPhone 3G was released, linking the iPhone to a much faster data network and providing true geolocation through the addition of a built-in Global Positioning System receiver. In that same year, developers were given the tools with which to create new applications to run on the device, and the App Store opened to rave reviews. Suddenly, purchasing games, utilities, and other apps became as easy as browsing an electronic store and pushing a Buy button.

The App Store has become the gold rush of the 21st century, with developers creating well over 225,000 apps in a little over two years. Some developers have made millions with innovative and useful products, further fueling the fire to push the technological edge with unique applications that take advantage of the iPhone's powerful hardware. The year 2009 saw the introduction of the iPhone 3GS, a phone that provided video capture for the first time. The 3GS also added an electronic compass that made augmented reality apps possible.

But it was the iPhone 4 and its next-generation operating system—iOS 4—that made a huge impact in 2010. The phone has been a huge success despite early issues concerning dropped calls, and once again Apple has set the bar so high that it will be difficult for the competition to catch up. The Retina display of the iPhone 4 makes everything on the screen look photorealistic, for the first time creating a smartphone display that actually has better resolution than the human eye can discern. An Apple-designed processor, the A4, drives the device at amazing speeds. The built-in camera jumped in resolution to 5 megapixels, and there's now a front-facing camera that enables another groundbreaking app: FaceTime. The iPhone 4 now has the distinction of being the first device to make video calling easy.

It's often said that Apple has provided developers with the infinite tool, something that turns into whatever you want it to be when equipped with the proper app. With so many possibilities for the iPhone, it can sometimes be daunting to new users. *Taking your iPhone 4 to the Max* introduces you to the iPhone 4. Starting with assistance on how to choose the iPhone that's right for you, we walk you through purchasing your phone and setting it up for the first time. You'll learn the gesture-based, Multi-Touch vocabulary that allows you to manipulate the iPhone and its hundreds of thousands of apps.

We'll show you how to connect to the Internet over cellular and Wi-Fi connections, browse the Web, touch your music and videos, and find and download apps from the App Store. You'll discover how to purchase and navigate books using Apple's revolutionary iBooks app, view and

organize photos, send e-mail and use other messaging services, create notes and update calendars, and even take high-definition video with your iPhone 4.

This book is written for anyone with an iPhone or anyone who is thinking of getting one. It doesn't matter if you're a Windows or Mac user or, in fact, even if you've never used a computer at all. This book's thorough coverage and step-by-step discussions allow all iPhone owners to learn about their device and come away with both the skills and the knowledge that they need to use it to its fullest.

How you read the book is up to you. If you are totally new to the iPhone or sometimes feel overwhelmed by technology, we suggest you read the book cover to cover. You can also feel free to jump around from chapter to chapter, trying different things out as the mood strikes you. Above all, we want you to have fun while you're learning everything that the iPhone can do. We honestly love our iPhones and love getting people excited about this technological wonder. Thanks for letting us show it to you.

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Selecting, Buying, and Activating Your iPhone

Now that Apple's iPhone has been out for a number of years, you may have seen horror stories in the press about how an iPhone is going to cost you thousands of dollars over its lifetime. You have to buy the iPhone, pay for activation, and fork out money for expensive monthly service voice, data, and text plans (not to mention taxes and other fees). If you decide to back out any time during the standard two-year mobile phone contract, you're going to hand over even more money in early termination fees.

Well, there's more than a grain of truth to what you read. Since you're going to be spending a couple thousand dollars over the next few years, you need to know what you're doing when you buy that iPhone. If you're weighing the choice of whether to purchase an iPhone and trying to figure out exactly how much you're going to be paying, this chapter is for you. You'll also discover the down-and-dirty secrets of iPhone activation, plan selection, and even return policies. This chapter contains all the basic facts you need to select, buy, and activate your iPhone.

Selecting Your iOS4 iPhone

At any given time, there are relatively few models of iPhones available. As of the publication of this book, all of them come with iOS 4, representing a new generation of the operating system software that powers the features of the iPhone. Usually you'll see an entry-level iPhone that is less powerful and has less memory, as well as the current model with state-of-the-art features and much more memory.

How do you choose the model that's right for you? It all comes down to two factors: cameras and memory. The first generation of the iPhone 4 has two cameras: a 5-megapixel camera with an LED flash that's capable of taking high-definition video and a front-facing camera that is perfect for shooting self-portraits and making video calls. As for memory, you need to make a decision about whether you want to double the purchase price of your phone for a few more gigabytes of memory. We recommend

getting as much memory as you can. If you load a lot of movies and videos onto your device, you can run out of space on a top-of-the-line iPhone very quickly.

Here are some questions to ask yourself while selecting the model of iPhone to purchase:

- *How big is your music library?* If your library is small, a unit with less memory might be fine. If it's large, the extra space on some iPhone models helps to store additional music and podcasts.
- *How many videos do you want to carry around?* A single two-hour movie may occupy more than a gigabyte of storage. If you travel a lot, especially on airplanes, you may want to pay more to store additional movies and TV shows with those extra gigabytes.
- *Do you plan on using your iPhone as your primary camera and camcorder?* If you do, then look at the more sophisticated models with higher resolution, flash, and high-definition (HD) video capabilities. If you already carry a digital camera or camcorder with you on a regular basis or don't frequently shoot photos or video with your existing phone, then the base iPhone model may be for you.
- *Is the thought of making video calls exciting to you?* For some people, just answering a regular cell phone call is a challenge. But if you love to have regular face-to-face conversations with friends and relatives, then you may want to consider the model with the built-in FaceTime video calling feature.
- *Do you need to carry lots of data?* Many iPhone apps use iTunes data storage and can synchronize files with your computer. Whether that data consists of presentation slide shows, project management files, or some other information that you need at your fingertips, the size of the data being stored can add up quickly. If you think you might need to do this, maybe the extra gigabytes on a more expensive iPhone model could be put to good use.
- *How long do you intend to keep this iPhone?* If you're an early adopter who likes to trade up at the earliest possible opportunity whenever Apple offers a new model of iPhone, you may want to "buy in cheap" each time the new models are released and sell your old iPhone on the aftermarket. If you'd rather get the most use out of the iPhone over the longest period of time, then paying more up front means you won't outgrow the iPhone quite as fast.

Considering System Requirements

iPhones are unlike most other cell phones. Like the iPod, you'll need a computer to connect your phone to. iPhones need to connect to computers regularly to synchronize music, videos, photos, e-mail, contacts, calendars, and more. You also won't be able to activate your phone on the AT&T network until you successfully connect your iPhone to Apple's iTunes program. For the iPhones in production at the time of publication, the computer system requirements are as follows:

- A Mac computer running OS X 10.5.8 or newer with a USB 2.0 port, or a Windows computer with a USB 2.0 port and Windows 7, Vista, or XP Home or Professional with Service Pack 3 or newer. Note that the system requirements are constantly changing as both iPhone and computer features evolve. We recommend viewing the most recent system requirements before you make any purchase decision (<http://www.apple.com/iphone/specs.html>).
- iTunes 9.2 or newer.
- iTunes Store account.
- Internet access.

Before you purchase an iPhone, make sure that you have a computer on hand that is up to the task.

NOTE: If you haven't installed iTunes on your computer, download a free copy from <http://www.apple.com/itunes>. Versions are available for both Mac OS X and Windows systems, and they're easy and quick to install.

Buying Your iPhone

Once you've decided what iPhone model to buy (Figure 1-1), you're probably ready to pull out your credit card and buy that phone as quickly as possible. So, where you should buy it? At an AT&T store or at an Apple Store? Or should you purchase it online? You might be surprised to learn that your choice does matter.



Figure 1-1. *The Apple iPhone 4 (left) and iPhone 3GS are typical of the models of iPhones available at any particular point in time.*

Although it's possible to purchase an iPhone from any number of online stores, we recommend buying your iPhone in person at a store. You can ask questions. You can make human connections. You can have your iPhone activated and ready for calling when you leave the store. If something goes wrong with your purchase, you have a person who's there to help you work through it.

The sad fact of the matter is that a significant, although small, percentage of iPhone purchases go awry. Some people end up with a screen flaw, such as dead screen pixels. It's not an uncommon problem, and if found soon after purchase, it may involve a trade-in for a new unit. Others may have problems with their antennas or with activating their service. The chances of resolving these issues may be better if you have a real person to help.

As for the question of Apple or a carrier, we lean slightly toward buying at an Apple Store. It's an Apple product you're buying, and the Apple staff members are more knowledgeable about their products.

This rule of thumb does not apply to iPhones with defects. Apple Stores will happily replace defective iPhones regardless of their point of purchase, and if you have problems with your phone service, you can go to any of the carrier's store locations whether you purchased your phone there or not; it's the service you're dealing with, not the physical iPhone unit.

Returns and Exchange Policies

The return policy for iPhones has improved since the release of the phone. If you're not happy with your iPhone purchase, you can return the undamaged phone to an Apple Store or the Apple Online Store within 30 days of purchase for a full refund. You must return the phone in the original packaging, including all the accessories, manuals, and documentation, and you won't be charged a restocking fee.

If your iPhone is returned to Apple within 30 days from the date of purchase (or shipment in the case of a purchase from the Apple Online Store), your wireless service is canceled automatically, and you are not charged an early termination fee (ETF). However, you will be charged for all usage fees; prorated access charges, taxes, and surcharges; and any other fees your carrier may charge.

If you purchased your iPhone at a cellular carrier store, things aren't as rosy. A restocking fee will generally be applied to the return, unless you purchased it without service and the phone box was never opened.

In the United States, where AT&T is the only carrier available for iPhone owners at the time this book was going to press, getting out of a standard two-year postpaid contract (meaning that you are billed at the end of each month of use) can be expensive. You can cancel the service within 30 days of activation without being charged for an ETF. After 30 days, the ETF is \$325 minus \$10 for each full month of your service commitment that you complete. For example, if you cancel your AT&T contract after 12 months, the ETF is $\$325 - (12 \times \$10) = \$205$. Canceling 23 months into a contract, you'd still be charged a \$95 ETF. Once you've fulfilled the two-year agreement, your service switches to a month-to-month automatic renewal.

If you opt for a nonstandard, no-contract, month-by-month plan, you pay only for the months you use, and there are no early termination fees. Your credit card is charged in advance for each month of use, and you must contact AT&T before the monthly charge date when you want to cancel. Otherwise, you will have paid for an extra month of service that you will not use. Learn more about the available plans and their trade-offs later in this chapter.

Bringing Home Your iPhone

Once you buy your iPhone, it's time to take it home, unpack it, and set it up. iPhone packaging (see Figure 1-2) is a small work of art. The iPhone ships in a box containing the phone itself, a USB connector cable, a USB power adapter, those famous white earbuds, and a packet of documentation. Each of these items is important and will help you in your day-to-day use.



Figure 1-2. The content of that nice iPhone box usually consists of a USB to Dock Connector Cable (bottom), a USB power adapter (center), and a stereo headset (top). You can find your complimentary Apple sticker in the packet at right.

- **Cable:** The USB cable attaches your iPhone to either your computer or the USB power adapter. If you've purchased an optional dock, the cable plugs into it, and the iPhone is then placed into the dock for charging or syncing.
- **USB power adapter:** The power adapter included with your iPhone plugs directly into the wall and allows you to charge your iPhone (or any USB device, for that matter). It offers a single USB port. To use it, just connect your iPhone to the adapter using the USB cable. The adapter supplies the 5 volts required for powering USB devices.

- **Stereo headset (earbuds):** The earbuds included with the iPhone differ slightly from those included with normal iPods. This stereo headset contains a built-in microphone and switch. The microphone allows you to take calls on your iPhone without holding the phone up to your ear, and the switch allows you to end calls as well as control music playback. The switch is also used to initiate Voice Control of your iPhone.

NOTE The features of older or newer models of the iPhone may vary from what you see in the following feature overview.

iPhone 4 Feature Overview

The iPhone 4 is similar to the iPhone 3GS in terms of external features. The top of the iPhone houses a jack into which you can plug your earbuds, a Subscriber Identity Module (SIM) tray (where your phone's SIM card is stored), and a Sleep/Wake button that is used to power on and off certain features. The bottom of your iPhone has a built-in speaker and microphone and an indented slot for connecting to your dock. The iPhone's front has a receiver (earpiece) on top, which you use to listen to phone calls, a large touchscreen, and a single Home button. You will not see the interactive screen shown in Figure 1-3 until you have activated your iPhone through iTunes.



Figure 1-3. iPhone 4 feature overview

Activation at the Store

If you purchase an iPhone at an Apple or cellular service provider store in the Apple Stores in the United States and many other countries, you'll find that the activation process is taken care of in the store at the time you pay for the phone.

After you've made your choice as to the model of iPhone you want to purchase and have picked out accessories (cases, cables, and other goodies) to go with it, it's time to pay for the goods. When the Apple Store associate scans the iPhone box with an iOS-based point-of-sale device, the device immediately starts asking questions that you'll need to answer. Among those questions are the following:

- Are you a current customer of a particular mobile phone company that features the iPhone? If so, what is your telephone number?
- Are you coming over from another cell phone company? If so, what company, and what is your telephone number?
- What voice, data, and text plan would you like to sign up for?
- If you are not eligible for a phone upgrade on your existing plan, are you willing to pay the extra cost to buy the unsubsidized phone? (Many carriers subsidize the cost of the phone, knowing that you'll more than pay them back in your monthly subscription fees.)

In the case of an existing iPhone owner upgrading to a newer iPhone, the point-of-sale device will check your existing phone number and will immediately let the Apple Store associate know whether you're eligible for an upgrade. There's usually a nominal fee associated with the upgrade, and you will be asked if you want to accept that fee. The associate will then display your existing voice, data, and text plans, and you'll be asked if you want to stay with those plans or change to a different plan. Of course, you'll also need to swipe the credit card that you'll use to pay for the phone and the plan, and your signature is required on the point-of-sale device.

Upon agreement to the terms and conditions of the carrier's plan and the use of Apple's hardware and software, your new iPhone is activated. Note that if you have an existing phone, the service to it will be cut off immediately.

Activating your iPhone at an Apple or a carrier store has another benefit. Most of the stores have a set of cables and special software that are used to transfer all your settings, data, addresses, photos, and more from your existing phone to the iPhone. This is especially important if you are getting your first iPhone and coming over from another phone platform.

Regardless of whether you choose to pick up your new iPhone in person at an Apple or cellular service provider's store or if you have it shipped to you from Apple or Amazon, you still won't be able to use the phone (except to make emergency phone calls) until you connect it to your computer. That's the second part of activation.

Preparing for Activation

You have unpacked your iPhone but haven't yet connected it to iTunes. Now is a good time to review data on your computer. When your iPhone is activated for the first time, it synchronizes with iTunes and, depending on your computer, to your e-mail accounts, your calendars, and so forth. Before you begin, here are some items you may want to review and clean up so your iPhone begins life with the freshest possible data:

- *Contacts:* The iPhone can sync with Microsoft Outlook 2003, 2007, or 2010 on Windows, Address Book or Entourage on a Macintosh, and Yahoo! Address Book on the Internet. To prepare for your first sync, review your existing contacts, and make sure they're up-to-date with current phone numbers and e-mail addresses. If you use another program to manage contacts, consider migrating your contacts to one of these solutions. If you'd rather not, that's OK too. You can add contact information directly to your iPhone, although it's not as convenient as having the information automatically loaded for you.
- *Calendar:* Your iPhone can synchronize with computer-based calendars just like it does with contacts. iPhone supports iCal and Entourage calendars on the Mac and Outlook 2003, 2007, and 2010 calendars on Windows. Get your calendars into shape before your first synchronization, and you'll be ready to immediately manage your schedule both from your computer and from your iPhone.
- *E-mail:* Your iPhone works with most e-mail providers including Yahoo! Mail, Google Gmail, AOL, and of course Apple's MobileMe. If your e-mail provider uses the industry-standard POP3 and IMAP services, your service will work with iPhone. You may want to establish new accounts with these providers before you activate your iPhone. That way, they'll load onto your unit the first time you synchronize. You can always add new e-mail accounts later, but it's nice to have them all set up and available for use right away.

NOTE: iPhone owners who use Microsoft Exchange as an e-mail, contacts, and calendar server will be happy to hear that their phone can tie into an Exchange server with no problems.

- *Media:* Current iPhone models offer relatively small storage space when compared to, for example, iPod Classic's generous 160GB hard drive. To make the most of this limited space, set up playlists for your favorite songs and podcasts, and consider removing TV shows and movies from your device once you've watched them. You can store your electronic books "in the cloud" on the Internet and download them when you want to read them, so why load all of them onto your iPhone at once? Since, in all likelihood, you won't be able to synchronize your entire media library to your new iPhone, invest time now in organizing your media to find those items you most want to have on hand.
- *Software and OS:* You should update to iTunes 9.2 or newer before you attempt to activate your iPhone. And, if you're using a Macintosh, make sure you've updated your OS to at least OS X 10.5.8. You can download the latest version of iTunes from Apple at <http://www.apple.com/itunes/download>. Remember that the system requirements may change at any time, so be sure to check the web page we mentioned earlier: <http://www.apple.com/iphone/specs.html>.
- *iTunes account:* Apple requires a current iTunes account to activate your iPhone. If you do not already have one, you must sign up for a U.S. account with the iTunes store. This requires a U.S. address and credit card. Here are the steps you'll need to follow in order to create that new iTunes account:
 1. Launch the iTunes application, and wait for it to load.
 2. Locate iTunes Store in the sidebar on the left side of the iTunes window. Click iTunes Store, and wait for the store window to load. Your Windows computer or Mac must be connected to the Internet for this to happen, since all storefront information is stored on Apple's servers.
 3. Find and click the Sign In button in the top-right corner of the screen. iTunes displays the sign-in screen shown in Figure 1-4. If you currently have an iTunes account, enter your Apple ID and password, and then click the Sign In button to sign into iTunes. No iTunes account? Click the Create New Account button, and follow the remaining steps to create your iTunes account.



Figure 1-4. Use the iTunes Sign In window to access iTunes with your existing account or begin the process of creating a new account.

4. Click Create New Account. The screen clears and displays a message welcoming you to the iTunes store. Click Continue to start the process of creating your account.
5. Review the terms of service, check the box that says “I have read and agree to the iTunes Terms and Conditions and Apple’s Privacy Policy,” and then click Continue. A new window appears prompting you to create your account.
6. Enter your e-mail address and a password. You must enter the password twice to verify that it was typed correctly. You also need to enter a security question—something only you would know the answer to, such as “What was the name of my third-grade teacher?” or “What color was my first car?” Supply the answer to that question in the next space, and then enter your date of birth. Finally, review the questions about opting into e-mail notifications, and then click Continue.

7. A payment information screen now appears. You'll need to enter a valid form of payment, either a credit card or a PayPal account. For a credit card, you must enter the card number, CVV number, and billing information. Those must match in order to complete account creation. If you choose to use PayPal, your web browser launches, and you're asked to log into the PayPal account to verify that you're a valid member. Finally, you can also choose to use an iTunes gift card or certificate as a form of payment by entering the redemption code on the card. Once the payment information has been entered, click the Continue button.

After following these steps, iTunes displays a screen congratulating you on creating the new account, and you'll also receive a confirmation e-mail at the address you specified during sign-up. The e-mail welcomes you to the iTunes Store and thoughtfully provides the customer service web address. In case you ever need it, that address is <http://www.apple.com/support/itunes/>.

Connecting Your iPhone to Your Computer

Once you have an active iTunes account, it's time to unpack your iPhone and connect it to your computer. Follow along as we connect to your computer in preparation for service activation:

1. Remove the iPhone from its box, take off the plastic factory wrapping, and remove the Dock Connector to USB cable.
2. Locate the two ends of the Dock Connector to USB cable. One is thin and marked with a standard three-pronged USB symbol, while the other is wide and marked with a rectangle with a line inside of it.
3. Connect the thin end of the cable to a spare USB 2.0 port on your computer.
4. Orient your phone with the screen facing you and the Home button pointing toward you (see Figure 1-5).



Figure 1-5. Plug the Dock Connector to USB cable into the iPhone with the rectangle mark facing you.

5. Locate the universal dock connector on the bottom of your iPhone. It's that rectangular hole about an inch wide that is located under the Home button. Gently yet firmly push the cable into the dock connector without twisting or forcing the connection. iTunes launches, and your iPhone should automatically power on.

If your iPhone doesn't automatically power on and display either a white Apple logo or a Connect to iTunes message, press and hold the Sleep/Wake button on the top of the iPhone—it's the button on the top right of the iPhone. After a few seconds, the iPhone should wake up and display the white Apple logo as it powers on. If the iPhone doesn't respond with some sort of message on the display, contact the store where you purchased the phone.

Activating Your iPhone (Nonstore Version)

Until you activate your iPhone, you won't be able to use it for anything except calls to emergency services. All you'll see initially is a prompt directing you to connect to iTunes. Activating the iPhone involves nothing more than selecting a service plan and registering your phone with your cellular carrier. In theory, this process is simple, and it works properly for the vast majority of new iPhone owners. However, if you're porting a number from another carrier or selecting a less popular plan, it can take a while to get your iPhone "on the air."

TIP If you run into significant delays during iPhone activation, call your carrier's customer service team. They'll usually refund the activation charge as a courtesy.

Selecting a Plan

Before you can send and receive calls, check your e-mail, or send text messages to your friends from your new iPhone, it needs to be set up with a plan, that is, a monthly rate plan that provides a certain number of minutes of voice calling as well as text or multimedia messages and data transfer.

At the time of publication, the iPhone voice, data, and messaging plans provided by AT&T for U.S. customers are relatively simple. You select a voice plan, add a data plan, and then add a messaging plan if you want. These plans change frequently, so you should *always* check the Apple (<http://www.apple.com/iphone>) or AT&T (<http://www.att.com/wireless/iphone/>) iPhone pages for the latest pricing information. In all cases, a two-year commitment is required on your part. Let's look at the voice, data, and text messaging options.

Voice Plans

Voice plans are for those times when you're not playing with your iPhone but instead having a conversation with others using the Phone app on your device. As an example, AT&T customers in the United States have a choice of several plans in place ranging from a low-cost minimum number of minutes per month (450) up to an unlimited calling plan. The difference in price between 450 minutes of talk time and unlimited was, at the time of publication, only \$30. If you do a lot of talking, an unlimited voice plan may be perfect for you.

Cellular carriers often provide other features with the voice plans. Visual Voicemail, which is Apple's proprietary way of implementing a voice mail inbox on the iPhone that you can see and interact with, is included. Carriers may also provide rollover minutes, which means that unused plan minutes can be used in future months, as well as provide "free" night and weekend minutes in excess of the plan minutes.

If you're having difficulty making your mind up about a voice plan, consider how much total time you currently spend per month talking on your existing mobile or landline phone. Most cellular providers will provide you with exact usage statistics. Also consider if you're going to be replacing a landline with your new iPhone. Many people are doing this, and it can increase your monthly usage.

Regardless of the plan you select, know that most cellular carriers allow you to adjust your plans for more or less minutes while you're in a contract. They understand that your needs can change and are usually more than willing to provide you with a more or less expensive plan in order to keep you as a customer.