Chris Malta

UNDERSTANDING THE INTERNET FOR HOME BUSINESS
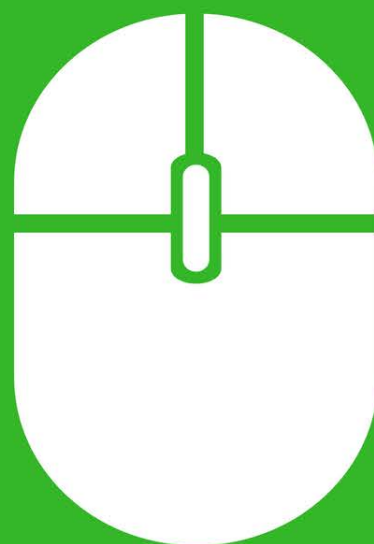
TURNING THE TECHNO-BABBLE INTO PLAIN ENGLISH

From the Product Sourcing Experts at WorldwideBrands.com

Understanding the Internet for Home Business

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Chapter One

Introduction

This is one of a series of my EBooks on different, important subjects related to Home Ebusiness (working from home, on your computer, to earn money on the Internet).

These books are NOT intended to be College-level Technical courses! There are plenty of books like that already! I intend these books to be common-sense explanations of information that is often very confusing to the average computer and Internet user. So, why is this series of EBooks called The "Truth" About Home EBiz, instead of just "Home Ebiz"? Simple. That's because it's the exact opposite of all the lies about Home Ebiz floating around the Internet today. Lies, bad information, disinformation, and outright scams.

Good Information is Hard to Find

Finding genuine, honest information about how to do business from home on the Internet is like trying to talk to a friend in a very crowded nightclub. Your friend is trying to shout something to you at the top of his lungs. The band is on stage behind you, cranking out tunes at a volume that hurts your ears. People keep bumping into you, and spilling drinks on your shoes. The smoke is so thick that your eyes are burning, and the mirrors behind the bar are reflecting the stage lights, blinding you

most of the time.

Your friend has information you need, but you can't hear him at all, and you can barely even see him. How much information do you think he's going to be able to give you in a place like that?

That's what finding real Home Ebiz information on the Internet is like.

- The "nightclub" is the vast expanse of the Internet itself.

- The "band" members are the thousands of Scam Artists who are screaming false promises at the top of their lungs.

- The "smoke and mirrors" are the cheap, useless, witless misinformation sold by people who don't know what they are talking about, and are trying to make a quick buck off of you, without caring how or where you end up.

So, who's your friend who's trying to shout the right information to you? I am, although I'll understand if you're not sure about that yet. :o)

Tired of the noise? Me too. Let's get out of that joint and sit someplace quiet, so that we can have a clear, understandable conversation.

There...much better, isn't it? :o) Let's get started!

Keep it Simple

As a twenty-year Computer Systems veteran, I've taken more fall-asleep-and-drool-on-your-shirt computer classes than I care to think about. Now, I'll admit I've had a few really great teachers, but many of the people who've been chosen by my schools to smother me into a classroom coma have been real social knuckleheads.

Sure, they knew their subjects. They knew them *very* well. However, a knucklehead with a lot of knowledge is still a knucklehead. There are many really knowledgeable computer people in teaching positions who simply aren't much good at *teaching*. What do they do instead?

They *flaunt*.

They flaunt their knowledge. They're so impressed with themselves that they feel they simply can't draw a breath unless everyone else around them is equally impressed with the incredible number of facts they have flittering around from neuron to neuron inside their over-stimulated brains. Teachers like these use six syllables in their words when they could have used two. They use twelve words when six would have been enough. Even when they *aren't* speaking in tongues, their tongues are over-speaking. Any teacher who says, "You may now activate your Visual Interface Devices", when they could have said, "Turn on your computer screens", is a social knucklehead, in my opinion. Someone who "talks

down" to people to make themselves sound important or knowledgeable shouldn't be teaching. However, it gets even worse. When a person like that has too much time on their hands, guess what they do? **They write *books* about what they teach.**

What's wrong with that?

Some poor student somewhere is going to get stuck having to ***read* those books**! Aaauuugghh!

Which, finally, brings me to my point. (It's been a long trip around to this point, hasn't it? I'll understand if you need to sit down and rest).

My point is that *I* had to study those materials. I've been 10 minutes into stuff like that, and actually thought I could feel the glaze forming over my eyes like a sheet of ice on a car windshield. Everything gets rippled and hard to see, and you get very cold for some reason. The cold may have something to do with dread; in fact I'm pretty sure that's it. You dread the fact that you are going to have to make some sort of sense out of twelve-syllable words spoken in unfamiliar tongues, and then you'll be *tested* on it!

Learning about the Internet *the hard way* can be an eye-glazing experience if there ever was one. Trust me on that; I've been there!

Don't worry, though. That's *not* going to happen here. I'm here to de-glaze your eyeballs for you, and show you a few things in terms that we can all understand. I know the Internet pretty well. I know the buzzwords, and the clever techno-babble that we systems guys use to impress girls at parties. (Well, that was the theory, anyway. For some reason, that never worked very well).

I also know how to teach. I did it for a while. I trained groups of businesspeople in computer use, and *I* learned very quickly that it's not the quantity of the knowledge that's important, or the length of the words used to teach it. It's the *quality* of the knowledge, and how well it can be put into *interesting* and *understandable* terms. It worked for my students and me then, and it's going to work for you and me now. :o)

We're going to de-glaze a whole bunch of subjects in this book. From what the Internet is to what a domain name is; from DNS servers and IP Addresses to Bandwidth and Autoresponders. Those are all just clever-sounding names that my fellow computer systems Dweebs came up with to purposely confuse the general public, and to sound slick when carousing on Saturday night at the Ice Cream Social.

In case you don't know what "Dweeb" means, Merriam-Webster's Dictionary defines the word as "An unattractive, insignificant, or inept person".

Being somewhat of a Computer "Dweeb" myself, I beg to differ. :o) I saw an unofficial definition of this word online that goes something like this:

Dweeb: "A young, excitable person who may mature into:

.   • A Computer Hacker (a bad guy)

.   • A Clever Computer Programmer (a good guy)

.   • A Nerd (you've probably seen the movie)

.   • A technically bright but socially inept person (**Bingo!**)"

The definition of "Dweeb" that I use in this series of books is:

Dweeb: "A technically bright but socially inept person".

It only fits, after all. The people in my line of work who make up terms that are more complicated than they need to be, in order to sound impressive, ARE technically bright. They're able to invent all that clever computer stuff, after all. However, it IS kind of socially inept to spend so much time creating names and terms for those things, that many times seem purposely misleading.

For that reason, whenever I explain one of those terms to you in this series of books, I'll call it a term from the **"Dweeb Language".**

The "Dweebish Language" is complex at times, but we will "un-complex" it here, never fear. :o)

ALL the impressive-sounding Dweebish terms we'll talk about, actually mean things that are much more down-to-earth than they seem.

Let me show you what I mean.

An Example of the Dweebish Language

Have you ever heard of a "**Twain Driver**"? No? OK, there's our first Dweebish Language term. Let's figure out what Twain Drivers *really* are, just for fun. :o)

Using your computer and a "Scanner" that you can buy at your local 'Computers Is Us' store, you can "scan images". All that means is that you slap a picture of your Aunt Bessie on your scanner (which looks very much like a small Xerox copier). Then you "scan" the picture into your computer.

Instead of ending up with a Xerox copy of the picture on paper, you end up with an image of Aunt Bessie on your computer screen.

Then the games begin! You can email that picture to your cousins, or you can remove

the "flashbulb red" from Aunt Bessie's eyes. You can resize her image. You can re-color it with really cool effects. Or, you can even use a "Paint" Program to make it look like she's been caught picking her nose (my personal favorite; I'm easily amused!)

However, in order to get that picture that's sitting on your scanner to turn into an image that you can play with on your computer, it has to pass through a "Twain Driver" in your computer.

The Twain Driver is simply a translator.

You see, computers and scanners don't speak the same language.

Think of it this way...say your computer speaks English, and your scanner speaks Japanese. Our ole' buddy Twain sits in between them, listening to the Japanese-speaking scanner, and telling the English-speaking computer what the scanner is saying.

The Twain Driver is just a **translator**. Does that mean that it's a little box built into your computer, wearing a set of headphones and a puzzled expression on its face?

No. It's a small Computer Program. If and when you buy a Scanner, it will come with an installation CD. You'll have to use that CD to install the "Scanner Software" into your computer. If you've had a computer for any length of time, you will have had to do that kind of thing already.

When you take that CD, and install the "Scanner Software" in your computer, the Twain Driver that your new Scanner uses will be installed as well. Why is this Twain thing called a "Driver"? Let's check the Dweebish Dictionary.

(*Dweebish Language Translation:*)

Driver: "A little computer program that helps your computer talk to the extra stuff you attach to it".

Like a Printer, for example. Printers come with "Drivers" too, but they're called "Printer Drivers", which is a term that's easy enough to understand all by itself. No Dweebish to English translation needed there. :o) So, isn't that cool? Now you know what a Twain Driver is...it's just a "scanner translator"!

You can go to parties and say things like, "Yeah, I was gonna scan that shot of the Himalayan Mud-Wrestlers and email it to you, but my Twain Driver wasn't working right!".

Most people won't have a clue as to what you mean. That's how us systems guys get our thrills; naming things like Twain Drivers, so that we can speak Dweebish to each other and

sound important. We could have just called it a "Scanner Translator", but then everyone would have known what it was. Where's the fun in that?

Here's the best part. Guess what the Dweebish word "**TWAIN**" really stands for in English?

It stands for "Technology Without An Important Name". Get it? **T**-**W**-**A**-**I**-**N**. **T**echnology **W**ithout **A**n **I**mportant **N**ame. I'm serious...that's really what it means!

NOTE: Some of the Folks out there will stick their noses in the air and try to tell you that this name actually comes from the saying "Ne'er the Twain Shall Meet". Don't you believe them. They're just trying to cover their butts, because they don't like to get caught being silly. :o)

After you finish either (a) giggling, or (b), snorting in disgust at the whimsical nature of Dweebs, please take some time to realize something.

You have just learned something that's *very important.*

You've learned that all these complicated-sounding words, terms and phrases used on the Internet and in computer systems aren't really so complicated after all. It's all just *stuff*. Stuff created by *people*, to do simple jobs, like translating "Scanner-language" into "Computer-language".

It *all* breaks down into simple stuff, once you understand what it means and what it does. "*Twain*", indeed. Still makes me laugh, after all these years. :o)

Anyhoo, that's what we'll be doing here. Taking complicated-sounding stuff and showing you what it really is in every-day language. It'll be fun. Really.

(Hey, you, there in the back! No snoring, please...and would you wipe that drool off your shirt?)

Chapter Two
Networking

The Party's at Your Place!

They always say it's best to begin with the basics, so that's what this Chapter is all about: **Networking**.

Networking is how computers talk to each other. It's the basis for the very existence of the Internet. To learn about Networking, we're going to go back to the early origins of the Internet.

The way the Internet came about, and these **basic concepts** behind the way it works, are *very important* for you to understand. The Internet is going to be a critical tool that you will use for your Home Business. The more you *understand* the tools you use, and *how they work*, the better equipped you are to succeed.

I was a Computer Systems Engineer for many years. The things I learned while working in that field were *critical* in helping me to succeed in my Online Businesses. It's critical for *you* to understand these things too, so that you have an important edge over your competition when starting and running a Home Internet Business.

I'll do my best to teach you these things in plain language, converting Dweebish Language terms into English as we go. The goal here is for you to really understand the material without having to suffer too much for the knowledge. :o)

In this chapter, we're going to cover the very important concepts developed during the first seven years or so of the Internet. I want you to come away from this with a good understanding of some Dweebish Language terms that were *very* important when the Internet started, and still are today. Those terms are:

. **Host Computer**

. **Workstation Computer**

. **Networking**

. **Local Area Network (LAN)**

. **Wide Area Network (WAN)**

. **Internetworking**

Wait! Come back! I said I was going to make this easy, and I *am;* so don't go shaking your head and running for the TV remote just yet!

While I still have your attention, let's get on with it!

Would you believe that the roots of the Internet we use today go back more than *forty years?!* That's right. *Forty* years. I've talked to older people who are in their 60's and 70's who complain that they just aren't interested in this new-fangled Internet thingy. Why should they have to learn all this new stuff invented by these hot-headed kids who have nothing better to do than spend their time confusing older folks?

Guess what, my friends? If you're in your 60's, this new-fangled Internet thingy began when you were in your *twenties.* If you're in your 70's, you were in your *thirties* when it all began. It was YOUR crowd who *started* this whole thing, so let's quit griping and get with the program! :o)

WAY back in the 1960's, when I was just a kid, there were a whole bunch of military people whose job was to worry about what would happen to the military's communications in the event of some kind of disaster. The solution to their worries was the Internet, though they didn't know it yet.

Now, if you look up your own information on the origins of the Internet, you'll find *some* people who will tell you that scientists in the interest of pure scientific research began this whole process. That's all warm and fuzzy and politically correct, but it's just stuffy Dweebs trying to cover their butts again. Let's think about it for a moment. Let's see...the U.S. Department of Defense basically funded the development of the Internet...OK, now we know the truth, don't we? :o) *That's certainly no secret, and there's nothing wrong with it.*

However, it's a strangely sad thing about us human beings...more beneficial technology comes out of war, or the threat of war, than from just about any other human endeavor. The Internet is no different.

With the Cold War in full swing, and paranoia over nuclear war lurking behind every shadow and around every corner, the US Military had to be sure that their "supercomputers" in one part of the country could talk to their "supercomputers" in other parts of the country, without getting interrupted completely if something bad happened that affected part of the system.

Now, the "supercomputers" they used back then were not even as advanced as the technology in a Six Slice Bagel Monster Toaster is today. That's all that was available at the time, though, and they needed to *keep* it available. They needed a way to keep military and other communications open across the country in the event of a "worst case scenario".

Way back in 1962, my biggest concern in life was that my parents got upset with me every time I overturned a bowl of Rice Krispies on my head, and soaked my jammies and my high-chair. (True story!) That was the

year that I think my Mother realized that raising kids wasn't going to be as easy as she thought. :o)

The Department of Defense, however, had bigger concerns in '62. So, the U.S. Department of Defense's "Advanced Research Project Agency" (ARPA) got together with a Government Research entity called The Rand Corporation. They began trying to figure out how to make computers talk to each other across the country, and to keep them doing so if part of the system was damaged.

Remember that back then, many computers were still room-sized monsters that ran on vacuum tubes and used punch cards. Computer "**Internetworking**" was a completely new thing.

(Dweebish Language Translation:)

Internetworking *(in the 60's):* "Computers in different locations talking to each other over a phone line or other wired connection."

You see, computers didn't talk to each other much, way back in the early 60's. That part still had to be figured out! So, it's no surprise that it took a full seven years (1962 to 1969) before ARPA actually got four computers in different parts of the country to say, "Hey, there!" to one another.

That had to be a really interesting conversation for the computers:

Computer 1 to Computers 2, 3 and 4:

"Hey, there!"

Computer 2 to Computers 1, 3 and 4:

"Hey, there!"

Computer 3 to Computers 1, 2 and 4:

"Hey, there!"

Computer 4 to Computers 1, 2 and 3:

"Hey, there!"

Hmmm. Alright, maybe not so exciting for the computers. However, it was thrilling, I'm sure, to the researchers at Stanford Research Institute, UCLA, UC Santa Barbara, and the University of Utah. Those places housed the first four computers that made up what we call the Internet today. Back then they called it
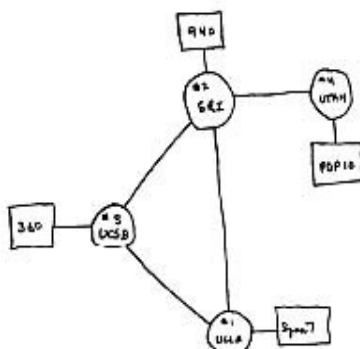
"ARPANET", which stood for "Advanced Research Projects Agency Network". (No, you won't be tested on that!)

Want to see a little piece of history? The image shown here is a copy of an actual pencil sketch of the very beginning of the Internet, by one of the people who conceived of it:

What that sketch shows is those four computers (the circles), connected by phone lines (the long lines), with little name tags (the squares with the short lines) for each computer. Doesn't look like much, does it? It wasn't, by today's standards. If you tried to draw an accurate pencil sketch of the Internet *today*, you couldn't do it. I don't think there are enough trees on the planet to make that much paper and that many pencils. :o)

It all started with those four computers, though.

Pretty soon, things really got cookin'. The little four-computer ARPANET was about to grow to 23 "**Host Computers**" and "**Workstations**" at University and Government research centers around the world.

We don't want to get ahead of ourselves, though. I said that it took a full seven years to get those computers to talk to each other. During those seven years from 1962 to 1969, the people at ARPA and Rand were figuring out exactly how to make them do that. We've just bumped into some more Dweebish Language terms, and this is where it gets interesting. Exactly what are "Host Computers" and "Workstations"?

(Dweebish Language Translation:)
Host Computer: "A computer that other computers can connect to, so that the Host Computer, and the other computers connected to it, can all talk together."

(Dweebish Language Translation:)
Workstation: "A small computer (your Home computer, for example) that can connect to a Host Computer. Once it connects to a Host Computer, it can talk to the Host and all the other workstations connected to that same Host."

Okay, I know! Those definitions are a little Dweebish themselves, aren't they? : o) Let's talk about them in a way we can all understand.

Who's Throwing the Party Tonight?

When you want to get a bunch of your friends together so you can all talk and have some fun, you can host a party at your house, right? Everybody comes over to your house with chips, drinks, and cookies. You're all right there, face to face in the same house, and you can sit around and talk. Exchange ideas, kick around some idle conversation, and maybe make a few side bets on what the weird guy's going to do next.

Let's get our Guest List together for this party. Because we don't want this to get too complicated, we'll keep it down to a dull roar. Just a few people.

Guest List

1. YOU, of course, are the Host of the party. Ladies, don't feel left out…in this case the word "Host" applies to men *or* women. :o) The party's at your place. :o)

2. JERRY FROM WORK. Jerry's a pretty cool guy, and he always brings food, so he's in.

3. JANET NEXT DOOR. Janet is a good friend, and lives next door. She's always got something funny to say, so she's good at a party.

4. THE WEIRD GUY WITH THE HAT. I know; I can never remember his name either. But wherever JERRY goes, THE WEIRD GUY is sure to follow, for some reason. So, we'd better plan for him too.

Now it's party time, and as the **Host**, you are ready for your guests.

Janet shows up first. She lives right next door, so she comes over early to help clean up a little, and get things ready.

About a half hour later, Jerry knocks on the door, and The Weird Guy with the Hat is standing right behind him. You begin to wonder about Jerry's need for more of a social life, but Jerry *is* a good guy, and he's got an armful of Cheetos and YooHoo. So, in come Jerry and The Weird Guy. :o)

The Party has begun!

Pretty soon, YOU are beating everyone at a fast-paced game of Monopoly. Janet is cracking everyone up with a story about her daughter's hamster. Jerry has an orange ring around his mouth from eating Cheetos, and The Weird Guy is chewing at a button on the sleeve of his shirt.

Great party!

Now, let's relate this Gala Event to the world of Computers and the Internet.

If you and your guests were all computers, You, Janet, Jerry and The Weird Guy would be called "**Workstations**". Sorry about that…not a very flattering term for people, is it? Don't worry about it…we're just making a point here.

(Guys…a little advice. Don't *ever* call your Wife or Girlfriend a "Workstation". I did that once, as a joke, and ended up doing *her* household chores *and* my own for a week!).

Anyway, for our example, let's pretend that You, Janet, Jerry, and The Weird Guy are all Home Computers, or "Workstations".

Now, since YOU have taken on the *added role* of *Hosting* the Party, YOU get a promotion!

You are no longer just a Workstation. YOU become the "Host Computer".

Why? Because it's your house. You are the one who has *made it possible* for these Workstations named Janet, Jerry, and The Weird Guy to get together and talk. That promotes you to "Host". Feeling pretty good about yourself, aren't you!

This is exactly how it works with computers. Any regular old computer that makes it possible for *other* computers to get together and talk with each other, gets promoted to the level of Host Computer.

Usually, a Host Computer is a more powerful and expensive computer than a Workstation. As we all know, the Host of a party *does more work* than the guests. However, a Host Computer does not *have* to be more powerful than the others. Any ole computer can be a Host. Even your Home Computer can do it.

Ok, back to the party. As I've said, you and your guests are all together in one place. You're talking, and laughing, and wondering privately about the sanity of The Weird Guy. You are *sharing information with each other*.

Guess what you're doing, in Computer terms?

You are *"Networking"*.

As people, you are sitting in the same room, communicating through the connection of your words, and speaking a common language. You can all understand each other. You are "connected" together through the fact that you can see each other with your eyes, and hear each other with your ears, and that you all know a common language. English, for example. You sit in that room and **"Network"**.

When the term "**Network**" is applied to computers, it means the same thing. The computers all understand each other through a common computer "language". They don't have eyes and ears, though, so *they* have to be connected by *wires* in order to see and hear each other. The **Host** computer and the **Workstation** Computers are all connected together in the same room by wires, and they are all communicating together through the **Host**. The **Host Computer** is the one that makes it possible for all the computers to connect, or **Network**, together.

That's what a Computer **Network**, and Computer **Networking,** *is*.

Pretty simple, isn't it? :o)

Now, believe it or not, we've already gotten through nearly half of the Dweebish Language terms we need to understand in this chapter! We've covered:

- **Host Computer:** Any computer that is used to "Host the Party".

- **Workstation Computer:** Any computer that simply attends the Party.

- **Network (Networking):** The Host and the Workstations communicating together.

Let's get to work on the other half, before anybody falls asleep!

We now know what a Computer **Network** is. Just a bunch of computers, wired together with a **Host** computer, that are sitting around talking with each other. That's a **Network.**

Now, a **"Local Area" Network** is simply a **Network** that's in a **"Local Area"!** That's all there is to that one!

Your party, where You, Janet, Jerry and the Weird Guy are all "Networking", is a **Local Area Network**. That's because it's *LOCAL*; it's *all in your house!* A **Local Area Network** is simply a Computer Network that is all wired together in ***the same room, or office, or building***. That's all it means. Really, I'm not kidding! It's that simple.

A **L**ocal **A**rea **N**etwork is commonly called a "**LAN**", for short. (That's pronounced as in "The plane is **LAN**ding".)

See how devious the Dweebish People are? The things we've discussed so far give a lot of people the willies, because they sound so important and mysterious. They're not complicated, though, and there will be no mystery by the time we're done here. :o)

Let's review what we have so far.

- **Host Computer:** Any computer that is used to "Host the Party".

- **Workstation Computer:** Any computer that simply attends the Party.

- **Network (Networking):** A bunch of computers, wired together with a Host computer, which are sitting around talking with each other.

- **Local Area Network (LAN):** A bunch of computers wired together *in the same office or building*, sitting around talking with each other.

Ready for more? Here we go!

Let's say that at the same time you are having the party at *your* house, another friend is having a party at *their* house as well, with other guests.

You know this has happened to you before! You plan a party, and then find out that half your friends are already planning on going to someone else's house for another party on the same day. <Sigh>!

OK, let's take a look at the Guest List of the other party. Again, we're going to keep it short:

Guest List:

1.   MONA. She's your friend across town, and she's the **Host** of the other party.

2.   GUS. A friend of yours and Mona's, although you're not too happy with GUS right

now. He went to Mona's party, not yours!

3.   ELMONT. Mona likes having ELMONT around, but in your opinion, she can have him. You've already got The Weird Guy to deal with.

So, now we have two parties going on. *Each of those parties* is a separate **Local Area Network**. At *each* party, the Host and the guests are all talking amongst *themselves only*.

Party (Local Area Network) #1:

- YOU (The Host)

- JERRY (Workstation)

- JANET (Workstation)

- THE WEIRD GUY (Workstation)

Party (Local Area Network) #2:

- MONA (The Host)

- GUS (Workstation)

- ELMONT (Workstation)

At your house, everyone is still having a great time. Then The Weird Guy starts to complain that he hasn't seen Elmont in a while, and wonders what he's up to. Jerry, of course, agrees, and suggests that maybe everyone at your house should pack up the Cheetos and all go over to Mona's party.

Anyone who's had a party before has been in this situation. Suddenly your party guests have become valued possessions that you must hold on to at all costs! The Enemy has infiltrated your camp, and is trying to get your people to defect! It's time to do something, or you'll soon be sitting there surrounded by orange Cheetos crumbs and half-empty bottles of YooHoo, all by yourself. One thing is for sure: YOU are not going to give Mona the satisfaction of showing up at HER party after she's managed to steal your guests and ruin YOUR party!

It's time for your counter-move. You've got to get a hold of the people at Mona's party, and convince them that they would be having a better time if they were at YOUR party!

So, what do you do? You turn the music up, to make it sound like the joint is really rockin'. Then you pick up the phone and call Mona's house. The idea here is to get The Weird Guy at your party to tell Elmont, over at Mona's party, what a good time Elmont could be having at YOUR party. Then you can get Janet to suggest to Mona that SHE pack up HER party, and come over to YOUR house. If you're careful, you can keep your own guests, and get everyone at Mona's to come over to your place too!

So, you pick up the phone, and call Mona. After exchanging a few pleasantries through

clenched teeth, you tell her that The Weird Guy wants to talk to Elmont. A few minutes later, Janet takes the phone and talks with Mona, suggesting that Mona, Gus and Elmont all come over to your place. Then Jerry spends a few minutes using your phone to talk to Gus. And so on.

Because you, the **Host of your party**, picked up a phone line and called Mona, the **Host of the *other* party**, *all the people at both parties* are communicating together.

Can you guess what you've done?

You've just created a **Wide Area Network!**

That's right! When you picked up the phone, your **Local Area Network** connected to Mona's **Local Area Network**. Each of your Parties, by themselves, are *still* separate **Local Area Networks**. *However*, the two Parties *together*, connected over a phone line, have now become a **Wide Area Network.** (That's called a **WAN** for short, and is pronounced the same way as **LAN**).

See? This really is easy, isn't it!

Well, if you liked that, you will like this even better. Do you realize what you, your guests, and the people at Mona's house are doing right now, by taking turns communicating over that **Wide Area Network**?

You are all **Internetworking**.

Your two **Local Area Networks** (Parties) have combined to form *one* **Wide Area Network**. All the people that make up both Local Area Networks are communicating with each other **over a Host's phone line**. That means they are **Internetworking**.

We're movin' fast now, so take a breath!

Ready? Okay, here's the next biggie: What is the *first part* of the word **"Internetworking"**?

INTERNET!!!

And there you have it, folks. You have just created a human **Internet**. You and Mona, the Hosts of your Parties, made it possible for all your guests to communicate over a remote connection (the phone line). You two **Hosts** have made it possible for two sets of people to **Internetwork** with each other from two different locations. *That's an **Internet**.*

Yes, you read it correctly. That's where this mysterious Dweebish Language word comes from. That's what the **Internet *is***, and where the name **Internet** came from, way back in the early days. :o)

All this "Internetworking" technology is what the people at ARPA and Rand worked so hard to invent back in the 60's. Inventing a way for computers to talk to each other, and then to talk to each other over connections like phone lines. Over those many years, they created

those capabilities, and gave them the following names:

- **Host Computer:** Any computer that is used to "Host the Party".

- **Workstation Computer:** Any computer that simply "Attends" the Party.

- **Network (Networking):** Two or more computers, wired together, that are sitting around talking with each other.

- **Local Area Network (LAN):** A bunch of computers wired together *in the same office or building*, sitting around talking with each other.

- **Wide Area Network (WAN):** Two or more Local Area Networks *in different locations,* connected to each other in some way (a phone line, for example).

- **Internetworking**: Two or more Local Area Networks *in different locations*, actually talking with each other.

What's the result of all this work back in the 60's? Yep. The **Internet**. I should point out that the term "Internet" wasn't actually used until 1974, by a man named Vinton Cerf. But, that's where it all began. Now you know the basics about what it is, how it works, and even where the word came from!

Okay, let's go back to the Party, because it's not quite over yet!

Now, pretty soon, a few things are going to happen. You and Mona and your party guests are going to finish talking, and hang up the phone. Since you've succeeded in convincing Mona's guests to come over to YOUR party, your party is going to get bigger. Then, eventually, everyone is going get tired and go home.

Let's take a look at what's going to happen to your **Local Area Network** and your **Wide Area Network** (your **Internet**), when those things happen.

- When either you or Mona hangs up the phone line connecting your two Parties (**Local Area Networks**), your **Wide Area Network** will *no longer exist*. The connection (your phone call) that created that **Wide Area Network** has been broken.

- At the same time, the little human **Internet** that you created will *no longer exist.*

- Your two Parties will *still* be **Local Area Networks**; that never changed.

- When Mona's guests leave her Party, and get in their cars to come to YOUR Party, HER **Local Area Network** (her Party) will *no longer exist.*

- When Mona and her guests arrive at YOUR Party, YOUR **Local Area Network** (your Party) will grow *larger*, and YOU will still be the **Host** of that **Local Area Network**. MONA will become a Workstation. YOU are the boss in YOUR house, not MONA!

- Finally, when everybody has had enough Cheetos and YooHoo, and they all get tired of you beating them at Monopoly, they'll all go home. They will *disconnect* from your

Network by leaving your house. When that happens, YOUR **Local Area Network** (your Party) will *no longer exist*.

Next week, Jerry is planning on hosting a Party, and you're invited. When you show up, you will then become a part of Jerry's **Local Area Network.** Given all the fun we've had at your Party today, you can imagine what's likely to happen at Jerry's place!

Okay, folks, the Party's over. :o) Believe it or not, I'll bet you now understand the basic Networking concepts that allow the Internet to exist.

The **Internet** is simply one extremely large **Wide Area Network**. One giant Computer Party, with Home Computers dropping by, and leaving, all the time!

Well, that about wraps up this chapter. You should now have a good understanding of what basic Networking is. It's really not that hard, as you've seen.

However, at this point, you may be wondering just why the heck you need to understand this stuff. Let's talk about that in a special section that I'll place at the end of each chapter, called:

Why the heck do I need to Understand this stuff?

You're going to find, as you move forward with your Internet business, that a good understanding of basic networking is going to come in handy in a LOT of different ways. Many times you'll understand what's going on with your business or your website without even realizing that you understand it, simply because you know some Networking basics. However, I'll list just a couple of *minor* examples of how this stuff can come in handy.

1. You get your Home Internet Business up and running all by yourself. After a while, the orders are rolling in, and you need some extra help. Your spouse has a computer too, and it would be great if you could both get on the Internet and work on the business from the two computers, instead of just yours. However, you only have one Internet connection. Now, you already have a pretty good idea that more than one computer in your house can use the same Internet connection, but you don't know how. You figure it's a good idea to go over to the local "Computers Is Us" store and ask. You can:

   a. Go there without any knowledge of Networking, and say to the sales guy; "Um, I want to put two computers on the same Internet connection. What do I need?" The sales guy is going to think, "Hey, here's somebody without a clue!" He's going to sell you a whole bunch of over-expensive stuff that you really don't need.

   OR, you can:

   b. Go there and say to the sales guy, "I want to set up and connect a small **LAN** in my house to a single Internet connection. What do I need?" NOW, the sales guy is going to think, "Hmmm...this one knows what she's talking about." He's going

to sell you just what you need, and nothing more.

Does that sound far-fetched to you? Believe me when I tell you that it's NOT. I have purchased more computer equipment (for myself, *and* for very large companies) than most people *ever* will. I can tell you for a fact that this kind of thing happens all the time. A salesperson will respect someone who has some basic knowledge much more than someone who doesn't, and will treat them accordingly!

2. You have a Website for your Home Internet Business. One day, you go on the Internet to take a look at your site. It's not there! AAAHHHHHH! What do you do now??? Well, the first thing you are going to do is call the Tech Support person at the Hosting Company you bought your Internet site from. (Hmmm... *HOSTING* Company. Does that remind you of anything from the chapter you just read?)

Most Hosting Companies have decent Technical Support people. However, you WILL run into a lazy Tech one of these days, who will talk down to you and will NOT be very interested in helping you.

So, you call Tech Support, and tell them that you can't see your website on the Internet. If you get a lazy Tech, he's going to say, "Well, I'm trying it *here*, and *I* can see your Internet site! There must be something wrong at your end!" That's a lazy Tech's favorite tactic. Make you think it's YOUR problem, and get you off the phone.

You have two choices at that point.

a.   If you know nothing about Networking, you can say, "Oh, okay....", and hang up. You'll sit there wondering what to do, but there won't BE anything you can do, until *hopefully* the problem clears up on it's own.

<div align="center">OR,</div>

b.   You can say to the lazy Tech guy, "Hey, pal, of *course* you can see it from where you are. *YOU* are on the same **Local Area Network (LAN)** as the Host Computer where my website is! **I, on the other hand**, am accessing it from the other side of a **Wide Area Network (WAN)**. (The **Internet**). Did you stop to think that maybe your Hosting Company has a problem with its **WAN** connection?"

You see, the computer on the lazy Tech's desk is *at the same party* as the computer that Hosts your website. (We'll talk more about computers Hosting your website later).

They are all in the same office. His computer is on the same Local Area Network. However, YOU are accessing the Host Computer at his Hosting Company over a "phone line" (a Wide Area Network connection). He needs to check to be sure that the Wide Area Network ("phone line") connection from his Hosting Company to the outside world is working properly.

I know that may seem a little confusing right now, but you'll get the hang of it. That exact situation has actually happened to me more than once.

These are just two *very simple and basic* examples of many different situations you will find yourself in as you work with the Internet. Knowledge is Power, my friend. Basic Networking may seem like something you think you'll never need to know, but that knowledge will be useful to you in many unexpected ways as you create and grow your business. :o)

Chapter Three
IP Addresses

Who's Where on the Internet?

Now that you understand the basic concepts of Internetworking, we can talk about something else that those intrepid Dweebish Pioneers had to create way back in the early days, and are still using today.

Life in the Wide Open Spaces

Let's say that way up North in the Yukon Territory there are two prospectors, looking for Gold in the streams and rivers. Every once in a while, their paths have crossed, and they've become friends. When you're prospecting for Gold in the Great White North, friends are hard to come by and life is very lonely, not to mention dangerous! It becomes important to the prospectors, Emma and Bob, that they keep in some kind of communication with each other.

They come up with a simple system to help them keep in touch. Their paths have often crossed at a place where several small streams come together. They decide to leave messages for each other inside a large hollow log near the place where the streams meet.

For example, Bob travels past the Hollow Log on a Monday, and leaves a note for Emma, such as:

"I'm going to town Saturday morning. Do you need anything?"

Emma walks past the Log on Wednesday afternoon, finds Bob's note, and leaves one of her own:

"I need Soap and Matches. Meet you here Sunday at Noon?"

Bob walks by the Log again on Friday, and finds Emma's note. He reads it, and leaves his own reply:

"Sure. See you here Sunday at Noon."

Their system works very well for a couple of years. They leave messages for each other, and get together every couple of weeks to share a meal and tell tales of their adventures.

Then one day Emma finds an unusually rich deposit of Gold-bearing ore in a streambed. She takes some of the Gold into town to have it assayed (have the value determined). Someone in town starts a rumor that Emma has found a rich Gold deposit, and other prospectors secretly follow Emma back to the area that she and Bob have been almost alone in for years.

Emma and Bob are not very happy about this, but there's nothing they can do, so the population of the desolate area begins to grow. Pretty soon there are a

couple of dozen prospectors working the area.

After a while, some of the others catch on to the idea that Emma and Bob had, about leaving notes for each other in the Hollow Log. They start doing the same thing. Pretty soon, the Hollow Log becomes a kind of unofficial Post Office for all the wandering prospectors.

It's a neat little system, but a problem begins to develop. There are now dozens of notes in the Hollow Log all the time. Each prospector who comes by has to reach into that hole in the Hollow Log, pull out *all* the notes, and look at each one, in order to see if the note is meant for them or not.

The system still works, but it has *slowed down*. It's become much more time-consuming to use as more people begin using it.

Guess where we're going with this? That's right! In early Computer Networks, that's pretty much how Computers passed information to each other.

No, they didn't use a Hollow Log, but they did end up with the same problem as Emma and Bob and the rest of the prospectors.

You see, computers communicate by sending messages to each other too. That's how they "talk" to each other. Little electronic messages, sent back and forth over a wired connection (a network).

In the early days, they did it much like Emma and Bob. In a very simple, two-computer Network (below), one computer would send a message out over the Network, and the other computer would pick it up. Just like Emma and Bob did for so long.

Simple two-computer Network, passing messages back and forth.

However, when the new prospectors showed up in Emma and Bob's territory, things got more complicated, right? *Everyone* started leaving messages in the Hollow Log. Pretty soon everyone had to look through ALL the messages in the Hollow Log to see which ones were for *them*, and which ones were for someone else.

The same thing happened back in the early days when computer networks got more complicated. When one computer on a network had something to say to another computer

on that network, it would *broadcast* its message to *all the other* computers on the network. Just like leaving them in the Hollow Log for all to see.
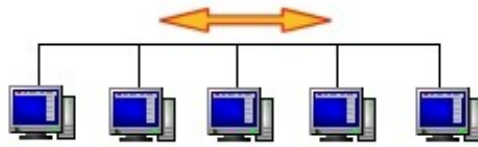
Five computers on a Network,
***broadcasting* all their messages to all the others.**

Each computer on the network had to look at *all the messages* on the network, to see whether each message was for that computer, or for another computer. Needless to say, this became *time-consuming* for all the computers as the size of the networks grew. The computers were doing far too much work, having to look at everyone else's messages as well as their own, and deciding which ones to keep and which ones to discard.

The Dweebish People realized then, that when a computer Network grows beyond just a small number of computers, the messages that the computers send to each other have to be *addressed* somehow, so that *only* the right computer will get them, and the others will not!

The answer, of course, was to give each computer its very own unique *address.*

In order to understand how this works, we need to look at three things:

- **IP Addresses**: These are *addresses* given to computers on the Internet, and other networks.

- **IP Packets**: These are the "messages" that computers send back and forth in order to "talk" to each other.

- **Multiple IP Addresses**: Some computers can have *more than one* Address.

IP Addresses

These days, all the messages sent back and forth by all the computers on the Internet know which *address* they are supposed to go to, and they go *only* to that address, and no other.

This is a *major* part of the way the Internet works, and it's very important that you understand something about it. There are millions and millions of computers on the Internet. They need to be able to tell each other apart. One message, meant for only *one* computer out of all those millions of computers on the Internet, has to be able to get to *that one computer*, and *only* that computer!

Each and every computer on the Internet today has it's own individual Address. Even your Home Computer, when you connect to the Internet, is automatically given it's very own individual *address* that is essentially different from the address of any other computer on the Internet, anywhere.

Let's explore this idea by looking at how the US Postal Service works, when you mail a letter. When you send a letter to your Uncle Joe Smithers down here in Florida, how do you write the address on the envelope?

Yes, yes, you in the back…I *know* you use a *pen!* That's very funny. Please sit down and stop disrupting the class!

What I mean is, there is a certain way you're supposed to address a letter. On the First line, you write the Name of the person you're sending it to, right? On the Second line, the Street Address. On the Third line, the City and State. On the Fourth line, the ZIP Code. Are you with me? Sure you are! We've all done it. When you're finished, you have something like this:

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

When you pop that puppy in the US Mail, you can be pretty sure it's going to get where it's supposed to go.

Why? Because you used the proper **Protocol**. That means that you addressed the letter the *way the Post Office wants you to*. They have a certain **Protocol** that you are supposed to follow:

- Name on the First Line.

- Street Address on the Second Line.

- City and State on the Third Line.

- ZIP Code on the Third or Fourth Line.

That's the US Postal Service **Protocol** for addressing letters.

Protocol just means, "The way you're supposed to do something". The step-by-step instructions on how to assemble your new Barbeque Grill is a **Protocol**, for example.

When creating the Internet, the early Dweebish People had to come up with a **Protocol** for delivering messages between *computers*. Just like everyone in the US has to use the same **Protocol** when addressing letters, the Dweebish had to be sure that every computer *addressed* its *messages* in the same way.

As a result, all computers today have to use the same *Protocol* for putting *addresses* on the messages they send to each other, just like we all do when we mail letters.

Since the Dweebish were developing an *address* *protocol* for computers on the *Internet*, they called it **Internet Protocol Addressing**, or **IP Addressing**, for short.

If you've spent any reasonable length of time on the Internet, you have probably heard of something called an **IP Address**. Well, now you know what it means! An **IP Address** is simply the unique, one-of-a-kind address given to your Home Computer whenever you "go online".

The same thing is true for all computers that are networked together. Any computer that is part of *any* Network, whether it's a huge Wide Area Network like the Internet, a Local Area Network in someone's Office Building, or even a little Local Area Network in your house, each computer gets it's own unique **IP Address**. Even some other devices on computer networks, like powerful business Printers and Copiers, can have their own **IP Addresses.**

So, who actually gives the **IP Addresses** to all those computers on all those Networks?

If you log on to the Internet using AOL, for example, then it's AOL's system that assigns an **IP Address** to your Home Computer, when you actually *connect* to AOL. That's one of the things that is happening when you hear all those beeping and skirling noises, if you use a dial-up connection.

Before I became a successful Internet Entrepreneur, I was a Computer Systems Engineer for *many* years. I worked for big companies like Kodak, for example. My specialty was designing and building Computer Networks.

As I've said, when you have a Computer Network, each computer on that network has to have its own unique **IP Address**.

Part of my work for companies like Kodak was "mapping" the **IP Addresses** for the Computer Networks I was designing.

It was a lot like mapping the streets and house numbers for a new town being built somewhere. Every street in that new town needs a name, and every house on each street needs a house number. Just like each house in a new town needs a unique *street address*, each computer on a network needs a unique **IP Address**.

Now, we all know what a Street Address looks like:

123 Main Street
Anytown, FL 12345

An **IP Address**, however, is just groups of numbers, separated by dots. Here's an example of an **IP Address**:

127.123.151.102

That's it. That's an **IP Address**. That **IP Address** will belong to only *one* computer somewhere in the world, out of all the millions of computers on the Internet.

Why is it all numbers and dots and such? Oh, come on! Surely you know by now what pleasure the Dweebish People take in confusing the mortal world!

Let's look at that series of numbers (**127.123.151.102**). **Each** of those four sets of three numbers each is called an "**Octet**". Every **IP Address** has *four* **Octets**. In our example of **127.123.151.102**:

- The first Octet is: **127** (Can be anything from 0 to 255)

- The second Octet is: **123** (Can be anything from 0 to 255)

- The third Octet is: **151** (Can be anything from 0 to 255)

- The fourth Octet is: **102** (Can be anything from 0 to 255)

As you see above, each Octet in an **IP Address** can be any number from 0 to 255, although **0 and 255** are usually **reserved** for other things, and not normally used in regular old IP Addresses. So, you end up with most IP Address Octets using any number from **1 to 254**.

Put those four Octets together into one long number, and you get a total of more than *four billion* **possible combinations!** When the original Dweebish Pioneers created that system, they figured that four billion **IP Addresses** was more than the Internet would ever need, so they figured they were safe. (These days, we're actually pushing that limit a bit, but that's not important here!).

On new business networks, like the ones I used to set up for Kodak, I usually assigned consecutive (one after the other) IP Addresses.
We're using 127.123.151.102 as an example of an IP Address right now. If we were setting up a business network like the ones at Kodak, what would the next IP Address on the same network be?

It would be 127.123.151.103. The last Octet would be 103, instead of 102.
Say I was setting up a small computer network for a new office at Kodak, and they had 7 computers in that office. Let's look at a series of IP Addresses that I might have assigned to the computers on that small office
network at Kodak:

First computer: 127.123.151.102

Next computer: 127.123.151.103
Next computer: 127.123.151.104
Next computer: 127.123.151.105
Next computer: 127.123.151.106
Next computer: 127.123.151.107
Next computer: 127.123.151.108

Those would be the consecutive IP Addresses of those 7 Kodak company computers on that small office network. Only the last number is changing, but because of that, each address is different and unique.

At Kodak, it actually got more interesting than that. There were times when I was involved in setting up networks for hundreds of computers at a time. We don't need to list hundreds of consecutive **IP Addresses** here, though. I'm sure you get the idea. :o)
I said that those "Octets" could be any number from 1 to 254. What happens when we get to the **IP Address** 127.123.151.254? The **fourth Octet** is as high as it can go, at **254**, right? What happens next?

The next IP Address would be 127.123.152.1

The third Octet goes up by one number, from "151" to "152", and the fourth Octet starts over again, at "1".
Let's take a look at that change in a series, to make it easier to see:

127.123.151.252
127.123.151.253
127.123.151.254 (The fourth Octet reaches it's limit, at 254)
127.123.152.1 (The third Octet goes up one number, and the fourth starts over again, at 1")
127.123.152.2
127.123.152.3
127.123.152.4

Still with me? Good! One more time, now:

What would happen to the IP Address when both the third and fourth "Octets" reach their limits of "254"? Let's take a look:

127.123.254.252
127.123.254.253 (At this point, only the fourth Octet is changing)

127.123.254.254 (The fourth Octet hits it's limit of "254". The third is also at its limit of 254).
127.124.1.1 (The second Octet goes from "123" to "124", and the third and fourth start over again, both at "1".)
127.124.1.2
127.124.1.3
127.124.1.4

  Getting the idea? You're probably beginning to realize just how big a number an IP Address is, right? You can start to see how we can get over four billion IP Addresses out of this series of numbers!

  OK, I'm not going to hit you with any more tables of numbers. Sorry about that! I don't want this book to start looking like all those boring textbooks I fell asleep over in "Dweebish School". :o) I just wanted you to have a sense of what **IP Addresses** look like.

One "ringy-dingy", two "ringy-dingy"...

  Let's talk for a bit about the way you connect to the Internet.
If you use an Internet service like AOL, for example, and you dial in over your phone line, AOL will assign your computer a different IP Address every time you connect to the Internet. That's called a dynamic (always changing) IP Address, because you get a different one each time you hang up and re-connect. When you hang up your Internet connection, (and your computer says, "Good-bye!" or something clever like that), you're disconnecting from the giant computer network that is the Internet.

  That *releases* the **IP Address** you have been using during your time on the Internet, and someone else can use it. After you disconnect, AOL will assign that same **IP Address** to someone else who connects after you leave.

  When you re-connect sometime later, AOL will assign your computer a *different* **IP Address**; one that happens to be un-used by anyone else at that time.

  If you use one of the faster "Cable" Internet connections, like "AOL Broadband", or "Road Runner", for example, your Internet connection is "always on". That means you are *always* connected to the Internet; you don't have to dial in every time. In that case, your computer will probably keep the *same* **IP Address** *all the time*. That's called a *static* **IP Address,** because it *stays the same all the time*. Your **IP Address** stays the same because you are *always connected* to that Network (the Internet).

  So AOL, for example, can assign **IP Addresses** to the computers of its members (like your computer, if you use AOL). How does AOL know which **IP Addresses** are *available* on

the Internet? How do they know whether or not someone else out there in the world isn't already using an **IP Address** that they assign to your computer?

It's simple, really. Companies like AOL, and all other Internet Providers, **purchase** "Blocks" of **IP Addresses.**

Internet Providers like AOL and thousands of others **buy the rights** to large numbers of **IP Addresses**, and they are the only ones allowed to use the ones they buy.

You, as an ordinary, everyday Internet user, are never going to have to know anyone's **IP Address** in order to send and receive information to and from the Internet. That's something that your Computer does for you, behind the scenes.

However, once you start an Internet Business, you *will* get into situations where you **need to know and use** certain **IP Addresses.** That's why I've bored you to tears with

all the information we just went over. :o) We'll get into why and how you'll need to do that, in a later Chapter.

Behind the scenes

If you are on a computer that's connected to the Internet right now, you can actually see what YOUR Computer's current **IP Address** is! Want to try it?

First, you have to make sure you are connected to the Internet. For example, if you are an AOL user, you need to "go online".

If you use a Microsoft Windows Computer (which the vast majority of people do), here's what you do *after you go online*:

- Click your Start button (bottom left corner of your screen).

- Select "Run" from the Menu that appears.

- In the little "Run" box, where it says "Open:", type CMD. That stands for "Command", which is short for "Command Prompt".

- A small Window (probably black) will appear on your screen. It'll look something like this partial image of my Command Prompt:

It may not say exactly the same thing, but you should see the C:\ there, whether something follows it or not.

- In that Window, type IPCONFIG, and press your Enter key:

- You'll end up with something like this:

See the line that's third up from the bottom, which says "**IP Address**"? That's the current **IP Address** of my Computer!

Don't worry about all the other stuff you see there...it's not important for our discussion here. Also, **DON'T WORRY if this did not work for you!** Older versions of Windows work differently, and some Home Computers have their Command Prompts disabled. The images above have shown you what I wanted you to see, and that's good enough. :o)

That same process on any other Windows Computer should show you a *different* IP Address on each different computer you try it with.

- Now, please remember to click the little "X" at the top right corner of that Command Prompt box we opened, in order to close it. :o)

So, an **IP Address** is simply a unique address given to each computer on a network, like the Internet, so that all the other computers can find it when they need to. Just like a Street Address. **IP Addresses** are made up of four *octets* that can range from 1 to 254 each, giving a total of over *four billion* possible combinations.

IP Packets

Exactly how do computers use these **IP Addresses** to communicate with each other?

Back in Chapter Two, we talked about the early Dweebish People, and how they gave computers the ability to talk to each other. Remember the reason they started that whole thing to begin with? Communications between Military Computers in the event of War was a big part of it, right? So, computers not only had to talk to each other, they had to keep talking to each other if part of the communications system was damaged. They had to be sure that those messages between Computers didn't get lost if part of the Network got damaged. Another concern was that secret messages did not get intercepted. Let's relate this to the Postal System, and sending a letter to someone. If you write a letter to your Uncle Joe in Florida, and the Mail truck carrying your letter gets hit by a train and explodes, your letter is gone forever, isn't it? It gets all burned up, and you probably wouldn't even know it until the next time you talked to Uncle Joe.

However, if you broke the message in your letter up into several letters, and sent them all out through different Post Offices, you can be pretty sure that Uncle Joe will get at least part of the message, right?

Let's try that with a letter to Uncle Joe. We'll start by sending a single letter to him. On the outside of the envelope, we'll address the letter to Uncle Joe, and then we'll write him what we want him to know.

* * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

Hi, Uncle Joe!

How are you? I am fine! The other day, I accidentally stepped on the Cat, and it bit me. Now, every time I try to feed it, it hisses at my foot.

Take Care!

* * * * * * * *

Now we send that letter to Uncle Joe. The Mail Truck driver mistakenly parks on a train track to eat his lunch, and a few minutes later the driver is standing on a little hill by the side of the tracks with mustard on his shirt, and the truck with your letter in it is in flames.

Uncle Joe isn't going to get your letter, and he will never know you sent it unless you tell him about it at another time. Even worse; *you'll* never know he didn't get it, until the next time you talk to him.

Now let's say that *several* of your letters have recently become the victims of strange and unusual Postal Service accidents. You're much more cautious with your letters these days!

Instead of sending Uncle Joe *one* letter that might get burned up, sunk, or stuck to the bottom of the Mailman's shoe and dragged around until it's unrecognizable, you come up with a brilliant plan. You are going to break up your *one* letter into *several* letters. At least *one* of them should get through, shouldn't it?

Let's try that.

* * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part ONE of Eleven Parts. Please let me know if any parts do not get through!

Hi, Uncle Joe!

* * * * * * *

* * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part TWO of Eleven Parts. Please let me know if any parts do not get through!

How are you?

* * * * * * *

* * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part THREE of Eleven Parts. Please let me know if any parts do not get through!

I am fine!

* * * * * * *

* * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part FOUR of Eleven Parts. Please let me know if any parts do not get through!

The other day,

* * * * * * *

* * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part FIVE of Eleven Parts. Please let me know if any parts do not get through!

I accidentally stepped

* * * * * * *

* * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part SIX of Eleven Parts. Please let me know if any parts do not get through!

On the cat, and

* * * * * * *

* * * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part SEVEN of Eleven Parts. Please let me know if any parts do not get through!

it bit me.

* * * * * * * *

* * * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part EIGHT of Eleven Parts. Please let me know if any parts do not get through!

Now, every time I

* * * * * * * *

* * * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part NINE of Eleven Parts. Please let me know if any parts do not get through!

try to feed it,

* * * * * * * *

* * * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part TEN of Eleven Parts. Please let me know if any parts do not get through!

it hisses at my foot.

* * * * * * * *

* * * * * * * *

This letter is Part ELEVEN of ELEVEN Parts. Please let me know if any parts do not get through!

Take Care!

* * * * * * * *

  You send those eleven letters out to Uncle Joe through different Post Offices, so that they will travel to Uncle Joe by different Mail routes and carriers.

  A few days later, you get a letter back from Uncle Joe, who has much better luck with the Postal Service than you do.

* * * * * * * * Hi!

I didn't get Part FOUR, and Part NINE got here, but it was partly burned and had mustard on it. Please re-send Parts FOUR and NINE.

Thanks!

Uncle Joe

* * * * * * * *

  Obligingly, you resend Parts FOUR and NINE of your letter to Uncle Joe, and he gets the complete message.

  THAT is how your Computer, and all Computers, send messages over Networks! Computers break their messages up into little **Packets**. Each **Packet** contains only *part* of the message. Each **Packet** also contains the **IP Address** of the Computer it is *going* to, and also the **IP Address** of the Computer it *came from*.

  That way, if the receiving Computer does not get all of the parts of the message, it can send a message back to the *sending* Computer, and say, "Please re-send these missing parts".

  That's how the early Dweebish People decided to get around the problem of broken-down computer networks way back then, and it is still used today.

  Now, **IP** (Internet Protocol, remember?) has a partner in all this work. **IP** is the **Addressing** end of the process. But what actually does the "breaking up" of all this information into these little Packets, so that **IP** can *send* them over the Internet?

Working hand-in-hand with **IP Addressing** on your computer is something called **Transmission Control Protocol.** That's **TCP** for short.

(*Dweebish Language Translation:*)

TCP: "Transmission Control Protocol. "A small computer program that breaks large chunks of information up into little packets of information, so that the information can be sent by **IP Address** over the Internet."

When your computer is first set up to use the Internet, someone installs **Networking** software on it. "Back in the Day", we used to have to do that ourselves, if we wanted to play on the Internet. These days, it's done before you ever buy your computer, and it's all ready to use when you first fire that system up.

Part of that **Networking** software is both the **Transmission Control Protocol**, and the **IP Addressing** software that your computer uses to communicate over the Internet. They work together, and are usually referred to as **TCP/IP**. If you've been around computers and the Internet for any length of time, you've probably seen **TCP/IP** mentioned. Well, the next time some Tech Support Rep mentions it to you, now you'll know what it is and does! Whenever you send or receive information over the Internet, **TCP** does the "coding and de-coding" of that information, in your computer. It breaks outgoing information up into Packets, and re-assembles incoming information *from* Packets back into something you can read.

IP sends your outgoing information on it's way after **TCP** turns it into Packets. It also *receives* incoming information, so that your computer's **TCP** can decode it for you.

So, your Home Computer communicates with the Internet by using **TCP** to break up everything it sends into those little **Packets**. Then it uses **IP Addressing** instead of Street Addressing, to send the Packets to their destination.

Let's take a look at how our letter would look if it had been sent by your Home Computer, as an **Email**. Here's how the first part of our actual *letter* looked, after we broke the original up into 11 parts:
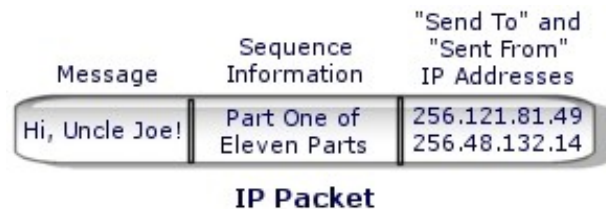
* * * * * * * *

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

This letter is Part ONE of Eleven Parts. Please let me know if any parts do not get through!
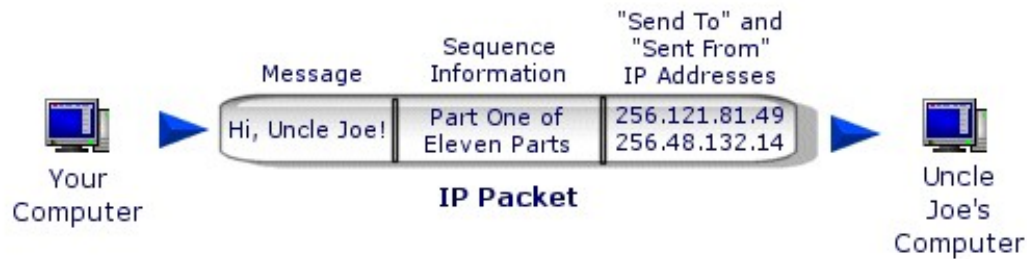
Hi, Uncle Joe!

Now, here's how the *first part* of that same letter looks as an *Email,* after your computer uses **TCP** to turn it into a bunch of **IP Packets**:

An IP Packet contains lots of other information as well, but we're only interested in these three things that it contains:

- **IP Addresses**: Notice that the **IP Packet** contains both a "Send To", and a "Sent From" **IP Address**. Just like a letter that has Uncle Joe's Street Address AND *your* Return Street Address on it, the **IP Packet** contains both Uncle Joe's Computer's **IP Address** *and* YOUR Computer's **IP Address**.

- **Sequence Information**: Just like your letter sent in eleven parts, Uncle Joe's Computer needs to know in what order to read the **IP Packets** it gets from your Computer. Your Email to Uncle Joe is going to arrive at his Computer as a whole bunch of little **IP Packets**; each one containing only PART of the whole message. The Sequence Information tells his computer how to put those **IP Packets** back together in order to read the message correctly, like putting together a puzzle.

- **Message**: The Message is the actual information that your Computer went to all this trouble to deliver to Uncle Joe. As I said, each little **IP Packet** will contain only *part* of the message. Uncle Joe's Computer will re-assemble them into the whole message.

So, your Computer uses **TCP** to break up your Email into a bunch of little Electronic Letters called **IP Packets**, and sends each of them to Uncle Joe's Computer, one at a time:

Message	Sequence Information	"Send To" and "Sent From" IP Addresses
Hi, Uncle Joe!	Part One of Eleven Parts	256.121.81.49 256.48.132.14

IP Packet

Your Computer → Uncle Joe's Computer

   Depending on the length of your Email, this could take eleven Packets, fifty Packets, thousands of Packets, etc. The size of the Packet is always the same; each one takes only as much of the Message as it can, and leaves the rest for other Packets that follow behind it.

Now, remember that this whole Packet thing is not just for Emails.

   All the information your Computer *sends to*, and *gets from* the Internet is in the form of tiny little IP Packets,
streaming in and out of your Computer over that Internet connection of yours.

   This includes Emails, it includes *all the other* information you send to and get from Websites, and anything else you do on the Internet. For example, when you go to the Yahoo.com Search Engine on the Internet, that Yahoo Home Page that appears on your screen *came to your Computer* in the form of lots of little **IP Packets**. They were re-assembled by **TCP** into a recognizable screen full of information, like little bits of a puzzle put together almost instantly. Pretty cool, huh? :o)

   It works the other way too, as I said. If you type in a search on Yahoo for "Bagel Spread Recipes", your Computer's TCP software breaks up your request up into little IP Packets, and they travel on their merry way, by different routes, to Yahoo.com. The Computers at Yahoo answer your Search request by sending back more little IP Packets that are just bursting with the information you requested.

This is all part of what the US Military's involvement in the creation of the Internet left us with.

 Our Computers are all kind of like the Super-Spy Decoder Rings we used to get in cereal boxes years ago. They are constantly using TCP/IP to scramble and de-scramble, and

send and receive, little packets of "secret code" (IP Packets) every time we use them on the Internet!

Bet you didn't realize what a busy little thing that Home Computer of yours is, did you? :o)

We've talked about what **IP Addresses** are, and why Computers need to have them.

We've talked about how IP Packets make up the actual information that's sent from computer to computer on the Internet.

Now we need to talk about Computers that have more than one IP Address.

There are Computers called Servers, out there on the Wide Area Network that we call the Internet. We'll talk more about Servers in a later Chapter. For now, though, we need to mention the fact that Servers are where Websites live. One Server Computer can be home to dozens, or even hundreds, of Websites.

Each one of those Websites on a Server computer also needs to have it's *own* IP Address.

Let's go back to our example of Street Addresses here. Uncle Joe's Street Address is:

Uncle Joe Smithers
123 Main Street
Anytown, FL 12345

That's a single Street Address, for a single residence, right? Like a single-family house. If that single-family house were a Home Computer, it would have one IP Address. Uncle Joe uses that Computer to surf the Web, send emails, etc. When Uncle Joe goes online, he only needs *one* **IP Address**, just like he only needs *one house to live in*. He is a *single Internet user* on a Workstation Computer.

Server Computers, on the other hand, can have many **IP Addresses** assigned to them. Think of a **Server** Computer as an Office Building. An Office Building has one main Street Address, but it has many "sub-addresses" inside it. For example, an Office Building that has ten floors might rent those floors out to twenty different Businesses, two Businesses per floor.

Here's an Office Building's "Main Address":

The Schmigel Building
205 North Winslow Ave
Anytown, FL 12345

Now, here's the address of a Business *inside* that Office Building:

ABC Nose Tweezers, Inc.
205 North Winslow Ave
Suite 201
Anytown, FL 12345

Notice that the basic Street Addresses of both the Schmigel Building, and ABC Nose Tweezers, Inc., are the *same*. That's because they are both in the same *building*. They *both* use "205 North Winslow Ave". They *both* use "Anytown, FL, 12345".

However, mail that goes to the owners of the Schmigel Building has *their* name (The Schmigel Building) on it, and goes straight to the owners of the Office Building itself.

Mail that goes to ABC Nose Tweezers, Inc., *also* goes to the Schmigel Building, but is *Addressed* to ABC Nose Tweezers, Inc., and has their *Suite Number* on it: Suite 201. That makes it a *completely unique and different address,* even though it is in the same Building as the owners of the Schmigel Building, and all the others who rent office space there!

Inside the big double doors at the entrance to the Schmigel Building, there's a set of mailboxes mounted in the wall. When Jolene, the Mail Carrier, shows up every day, she places mail addressed to the *owners* of the Schmigel Building, onto the Reception Desk in the Lobby. The Receptionist makes sure that the *owners* of the Schmigel Building get that mail.

The rest of the mail for the Office Building at 205 North Winslow Ave gets divided up and dropped into the correct mailboxes in the wall. ABC Nose Tweezers, Inc.'s mail gets dropped into the mailbox marked "Suite 201", and so on.

That's an example of *multiple addresses* in the same *physical location*.

This is basically how IP Addresses work on a **Server** Computer.

A "**Web Server**" Computer on the Internet has an *overall* **IP Address** of it's own, for the whole Computer. Just like the Schmigel Building. However, like an Office Building, a **Web Server** is a *Computer* where people can "rent space" to house their Internet Websites. So, inside that **Web Server** computer, there are many different "rental spaces", each with it's own **IP Address**. Just like Offices rented out to Businesses inside an Office Building!

We're going to get much deeper into Web Servers, and other kinds of Servers, in

a later Chapter. Right now, it's enough for you to understand:

- What **IP Addressing**, **IP Packets** and **TCP** are.

- Why we need them.

- The fact that some computers (like Home Computers) have *one* **IP Address**, and others (like Web Servers), can have *many* **IP Addresses**.

Why the heck do I need to Understand this stuff?

This is an easy one.

Understanding what **IP Addresses** are, and how they work, is going to be **very important to you** when you start your Home Internet Business. You are going to *have* your own **IP Address**, for your Internet Store/Website. You may need to use your **IP Address** in order to "upload" information to your Website (We'll get into that later!)

You **will run into** *problems* with an **IP Address** someday. **There's no "maybe" about it**. It *will* happen!

If you understand the basics of **IP Addressing**, you'll learn to recognize those problems easily.

Right now, you may not be able to imagine exactly how this information will help you. I remember how we used to all complain in High School, saying, "Why do we need to learn all this stuff? We'll never use it in real life."

Well, it may not seem like it now, but you'll find that knowing this stuff means that you will be able to deal with Technical Support people much faster and more easily. Your moneymaking Home Internet Business won't suffer nearly as much "downtime" (time when your business Website is not functioning). This gives you a great deal of advantage over those who do *not* understand these things. Believe me; I know! I've been there many times. :o)

Now, let's show you **Step by Step** how to properly Register, set up and *fully manage* your Domain Name(s), in **Chapter Four!**

Chapter Four
Domain Names

Pointing the Way

In the last Chapter, we talked about the fact that every *computer* on the Internet has an **IP Address**. We also talked about the fact that **Web Sites** *also* have their **own IP Addresses**.

In this Chapter, we're going to talk about:

- **Domain Names**

- **Nameservers**

- **DNS Services**

- **Registering Domain Names**

- **Managing Domain Names**

- **Multiple Domain Names**

Now, this is a heavy-duty Chapter, folks…the biggest one in the book. It is that way because I wanted to give you a real working example of setting up and managing your own Domain Name, and everything that goes with it. You won't understand everything the first time through. **Don't worry about that!** When you get to actually *using* this information in your own business, everything will start to "click". :o)

Doesn't that sound like fun!! Aw, c'mon…if you're still with me, you're doin' great. :o)

People often get confused about exactly what a **Domain Name** is, and how to get one. I get two main questions all the time about **Domain Names**, so let's look at the *short* answers to those questions now:

1. Is a **Domain Name** included when I buy a Web Site?

A **Domain Name** and a **Web Site** are two totally separate, different things. *Sometimes,* a **Domain Name** will come included when you buy a Web Site, but that's usually not as good a deal as it sounds. A Domain Name is *more than just a Name*. The **Domain Name** you get may not have the features you need. Always beware of freebies and cut rate deals when looking for a **Domain Name!** There are good places to get **Domain Names,** and there are

lousy places to get them. You'll understand what I mean by the end of this Chapter!

2. Do I need a **Domain Name** if I am **only** planning to do Internet Auctions?

If you are planning on using Internet Auctions **only**, you will **not** need a **Domain Name**. However, most people who start out in Internet Auctions tend to move farther into Internet Business, and *do* end up needing a **Domain Name** eventually.

Those are the short answers to the most common questions I get about **Domain Names**. Don't go away yet, though! If you are planning to do business on the Internet **at *all***, you **need to understand what Domain Names are**, and **how they work**.

So, what is a **Domain Name**? Well, first, you should know this: A **Domain Name** is something you *rent*, like an apartment, or a car. Luckily, they **aren't** nearly as expensive!

Sometimes you hear people talk about *buying* **Domain Names**, or *selling* them. That's just not the way it works. You can *never fully own* **Domain Names**. You *rent* them, by going through a process called **Domain Name Registration**. You can **Register** a **Domain Name** for anywhere from $10 to $35 a year. Why the difference in price? Well, some **Domain Name** providers offer you more features than others, giving you *more control* over your **Domain Name**. Some are less reputable companies than others, and may disappear on you overnight, leaving you *no control* over your **Domain Name**. Again, we'll talk about all that, and about how and where to Register **Domain Names, later in this Chapter**.

Now let's make sure you understand what **Domain Names** are, and how they work. Again, this is a ***very important* thing to understand**, for the good of your Home Internet Business.

Names to Numbers

When I was a kid, way back in the sixties, I remember that my Mom and Dad used to give people our phone number starting with a *word*, not a number. Our phone number was 288-1615. When my Mom would tell someone our phone number, though, she would say "Butler-1615". Why use the word "Butler" instead of "288" at the beginning of the number?

It was supposed to make it *easier for people to remember* phone numbers.

Each phone company "prefix" (the first three numbers, like "288") was given a **name** in those days. If you look on your phone's dialing buttons, you'll notice that the letter "B" is on the "2" button. The letters "U" and "T" are on the "8" button. So, our "prefix" numbers of "288" could be used to spell "B-U-T". The *name* that our local phone company gave that 288 prefix was "Butler".

"288" = "B U T" = "Butler", get it? :o)

So, our phone number was commonly referred to as "Butler-1615". My Mom simply said "Butler-1615" whenever she gave out our phone number.

They don't do that anymore, but the logic still holds true. You see, associating a **word** with a **number** makes that number easier to remember. True then, and true now.

Well, guess what, folks? That is EXACTLY what a **Domain Name** is. It's nothing more than a **word that's associated with a number**, so that *we don't have to remember the number*.

As I said before, when you start your Internet Business and get your own Web Site, your Web Site will have its *own* **IP Address.** In fact, when you first buy your Web Site, the **only** way to see it on the Internet will be through its **IP Address**.

So, when you begin to tell your customers about your Web Site, how will you tell them to find it on the Internet? Let's use an example. My company, Worldwide Brands, Inc., has a Web Site. That Web Site is probably where you found this book. :o)

We purchased our Web Site "Hosting" from a company that we've used for a while, and we trust. Let's call them "**Jim's Web Hosting**".

"**Jim's Web Hosting**" assigned an **IP Address** to our Web Site when we purchased the "Web Site Hosting Plan"from them.
The **IP Address** that our Jim's Web Hosting gave our Web Site is 198.65.239.163.
You can go Online, type that **IP Address** into your Internet Browser, and it will take you to our site:
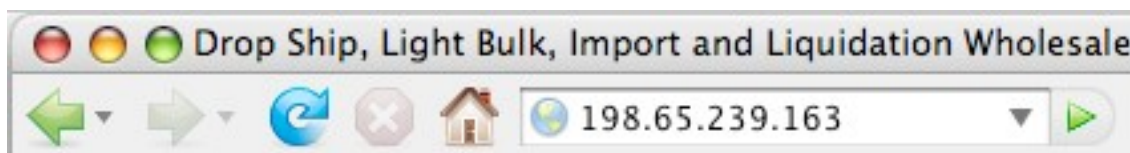
However, when we **advertise** our Web Site, we don't go around saying "For the best Home Business Information on the Internet, come and see us at 198.65.239.163!" Why don't we do that? Because it's a long, complicated number! **No one will *remember it!* Names** are much **easier to remember** than numbers. **That's what a Domain name *is*.** It's just an EASY TO REMEMBER "shortcut" to an **IP Address.**

When you "Surf the Internet", you use **Domain Names** all the time. **Www.Yahoo.com** is the **Domain Name** of a very popular Search Engine. **Www.eBay.com** is the **Domain Name** of the world's most popular Auction Web Site. Yahoo's Web Site has an **IP Address**. So does Ebay's. **All** Web Sites are actually located by **IP Addresses**. Those **Domain Names** are simply **shortcuts** to the **IP Addresses**; just *easy to remember* words that point to long, hard to remember numbers.

So, as you read through this Chapter, just remember this:

Domain Names are simply *shortcuts* to IP Addresses.

Nameservers: Making the Connection

If all Web Sites are located by **IP Addresses**, and **Domain Names** are just shortcuts to those **IP Addresses**, how does each Domain Name know which IP Address it belongs to? We're going to talk a lot more about **Server Computers** in the next Chapter of this book. However, to find the answer to that question, we're going to jump the gun just a little bit here and mention something that the Dweebish People like to call **Nameservers**.

(*Dweebish Language Translation:*) *Nameserver:* "A special Internet Computer that matches **Domain Names** to their **IP Addresses**."

Server is a word commonly used to describe a *computer* that helps to actually *run* the Internet. **Servers** do many things, as you will find out in the next Chapter.

One type of **Server** computer, the **Nameserver**, is an Internet "Yellow Pages" for matching **Domain Names** to their proper **IP Addresses**.

A **Nameserve**r is something you will never actually work with yourself. You won't go down to Computers Is Us and buy yourself a **Nameserver** computer.
Nameservers live in the Land of the Dweebish. They are powerful computers that sit in thousands of Computer Network Centers around the world. They help to run the Internet. AOL, for example, has a large number of **Nameservers** sitting in their Networking Centers around the world.

As I said, their purpose is to match each **Domain Name** with it's proper **IP Address**.

Look at it this way. When you want to call your local Hardware Store, "Joe's Wheels and Barrows", to find out if Joe has a new wheel for your barrow, you probably won't remember the *phone number* of Joe's store. After all, you don't call there very often. So, what do you do? You pick up your phone company's Yellow Pages and look up the thing that you *do* remember...the NAME. You're going to find a Yellow Pages listing like this:

Joe's Wheels and Barrows….........555-1234

You have just matched up the NAME you *remember* with the NUMBER you *couldn't remember*.

That's **exactly** what a **Nameserver** does.

When you type the Domain Name of a Web Site into the Internet Browser on your Home Computer, you've told your computer the NAME of the site you want to go to. But your computer doesn't know the NUMBER (the **IP Address**) of that site. It *must find that number* in order to show you the Web Site you want to see.

So, being the sneaky little things that Computers are, it does something *behind the scenes*, without telling you. It contacts the Internet's version of the Yellow Pages; a **Nameserver**.

You won't see this happening. Again, it's an automatic, *behind the scenes* thing that your computer does. For example, you type **www.WorldwideBrands.com** into your Internet Browser, like so:
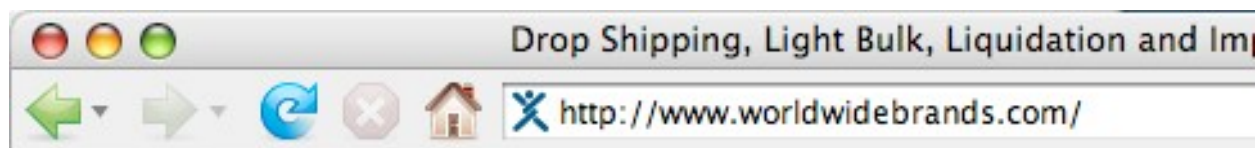
"www.WorldwideBrands.com" is a **Domain Name**. But, since computers only talk to each other using **IP Addresses**, your computer has to find out what the **IP Address** of "www.WorldwideBrands.com" is, before it can take you there.

So, your computer sends a request over the Internet to a nearby **Nameserver**. Basically, your computer says to the **Nameserver**, "Excuse me, what is the **IP Address** for "www.WorldwideBrands.com"?

The **Nameserver** looks through its records, and finds this:

www.WorldwideBrands.com = 198.65.239.163

So, the **Nameserver** says back to your computer, "Well, little buddy, according to my records, the **IP Address** for "www.WorldwideBrands.com" is 198.65.239.163!"

Your computer says, "Hey, thanks a lot." Then, without bothering to tell *you* what it's *really* doing, it contacts the *IP Address* 198.65.239.163, and my company's Web Site appears on your screen!

So:

- A **Domain Name** is simply a *name* that's easy for people to remember, so that they don't have to remember an **IP Address** to find a Web Site!

- There are **Nameserver** computers on the Internet that work *behind the scenes* as Internet "Yellow Pages" for matching each **Domain Name** to it's proper **IP Address**.

Nameservers are "Chatterboxes"

Nameservers are always talking to each other. They're very chatty computers! Each **Nameserver** on the Internet is always asking all the other **Nameservers** questions like, "Hey, find any good names lately?" :o)

Let's look at our Yellow Pages example once again. Every local area has its own Yellow Pages, right? I live near Orlando, Florida. I have a copy of a VERY large book called the Orlando Yellow Pages here in my house. I can look up pretty much any business name in and around Orlando in that book, and I'll find out what *number* to call to reach that business. **However, I can't** use the Orlando Yellow Pages to look up a phone number in Dallas, can I? Of course not. It's a local book; it's not designed to give me any numbers that are outside its local area. But what if my Orlando Yellow Pages could talk to all the other Yellow Pages books around the world? What if I could ask my Orlando Yellow Pages for the number of a business in Dallas, and my Orlando Yellow Pages said to me, "Well, that's outside my area, but I'll contact my cousin, the Dallas Yellow Pages, and find out for you!"

Now, we all know that Yellow Pages books can't do that. But guess what?

Nameservers CAN. In fact, that's their job.

Your computer can contact *any* old **Nameserver** and ask it, "What is the **IP Address** of 'www.WorldwideBrands.com'?" That **Nameserver** will check its records. If it doesn't know that answer, it will talk to *other* **Nameservers** until it *finds the answer*. I wish my Yellow Pages could do that!

All right, enough about **Nameservers** for the moment. Right now, we need to move on to...

The Basics of the Biz

When you decide to set up an Internet Store for your home business, you need two basic things to start with:

- **Web Hosting** (A **Web Site**)

- **A Domain Name**

Web Hosting

When I want to open a new Web Site, like an Internet Store for example, I call a **Web Hosting Provider**. This is just a company somewhere out there in the world that has a building full of **Web Server Computers** that **Host** Web Sites.

For example, I mentioned that I use a company that I'm familiar with and that I trust when I want to open a new site. I've been calling them "Jim's Web Hosting Company" in this book. (No, that's not their real name!). There are *thousands* of companies like this out there on the Internet. They all want to sell you a Web Site. There are both good ones and bad ones...**you have to be careful**!

So, I call their Sales phone number, and I tell the Sales Rep, "I want to open a new Web Site". The Sales Rep says, "Okay, what kind of **Web Site** will it be?"

You see, there IS a difference. If I want to open a Web Site that simply shows people information, like my Cousin Bill's recipes for Five-Alarm Chili, that's one kind of Web Site.

If I want to **SELL** cases of my Cousin Bill's Five-Alarm Chili over the Internet, that's *another* kind of Web Site altogether. It's an Internet Store.

I tell the Sales Rep that I want to use the Web Site as an **Internet Store**, and together we choose the best **Hosting Plan** for me.

She offers me the *option* of registering a **Domain Name** at this time, but I like to register my **Domain Names** elsewhere and separately, so I pass on that option.

To make a long story short, (we'll discuss **Web Hosting** details in Chapter Six), I choose a **Hosting Plan**, give Jim's Web Hosting Company my name and credit card information, and in a day or two I get an Email telling me that my "New Web Site is Active!"

That Email will say something like:

* *

"Congratulations! Your New Web Site is Active! Your Web Site is:

 123.45.67.89. Your User name is: DJU28H9 Your Password is: LUMPY

* *

Okay, great. I now have a new Web Site. However, it doesn't have a **Domain Name** yet. It's just an **IP Address** at this point. If I wanted to send someone to that Web Site to buy something from me, I would have to say, "Check out our new line of Bill's Five-Alarm Chili, at 123.45.67.89!"

I'm not gonna sell much Chili that way.

Even if someone wanted Bill's Chili badly enough to write down that long string of numbers, and go there using their computer, they wouldn't find any pictures of Bill's Chili or the red, sweating faces of those who have tried it. The site brand new; it's still *empty*. I haven't put any Web Pages there yet.

If they typed that **IP Address** into their Internet Browser at this point, they would probably see nothing but a "placeholder" page on their screen, put there by Jim's Web Hosting Company. It would say something like:

"This Web Site is under development; please stop by later!"

So, I've got my brand new, empty Web Site, all ready for me to start developing into an Internet Store. What next? Well, before I start working on Pages for the Site, I want to make it easier for my future customers to remember, by attaching a **Domain Name** to it.

As I said before, it's not going to do me much good to start advertising my great new Internet Store by telling people to "Come see us at 123.45.67.89!" Nobody's going to remember that, right?

So, I'm going to pick a flashy **Domain Name** that people can't possibly forget!

Parts is Parts!

Before we get into choosing a **Domain Name**, let's look at the three *parts* of a **Domain Name**. They are:

1. **Host**

2. **SLD (Second Level Domain)**

3. **TLD (Top Level Domain)**
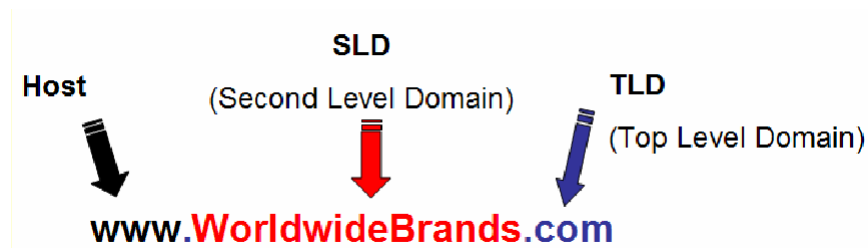
My company owns "www.WorldwideBrands.com", as I'm sure you know by now. In that **Domain Name**:

- The **www** part is called the **Host**.

- The **WorldwideBrands** part is called the **SLD** (Second Level Domain).

- The **.com** part is called the **TLD** (Top Level Domain).

What do these three things mean? Let's take a look.

"**Host**"

You know you're familiar with this! The famous "**www!**" It's at the beginning of the name of every Web Site you visit. It's hard to say fast...I've heard a lot of people recently trying to invent shortcuts for it, like "dub-dub-dub", or "three-dub", for example. None of the shortcuts have caught on...people still stumble over trying to say "www" fast when they are telling you about a Web Site. :o)

But why is the **www** there to begin with, and what does it mean?

"**www**" is known as the "**Host**" part of the address. Think of it as the Area Code of a phone number. No, it isn't the same thing, but it's a familiar way to look at it.

The Area Code of a phone number lets the Telephone system know that you want to contact someone in a certain part of the country, or the world.

The **Host** part of the **Domain Name** lets the Internet know that you want to contact a **certain part of the Internet**. What part? The World Wide Web! That's why it's "**www**".

Without getting too complicated, the "**www**" (**Host**) part of the **Domain Name** simply tells the Internet that you want to go to a *Web Site*.

There are other kinds of "**Hosts**" besides "**www**". For example:

- **FTP:** This **Host** Name stands for "**File Transfer Protocol**". Let's say you purchased a copy of the Computer Program "Norton Antivirus" from Norton's parent company, Symantec. You made your purchase at their **Web Site**, "**www.Symantec.com**". (Notice that their main **Web Site** uses the **www** Host at the beginning of its **Domain Name**, because it's a **Web Site** where you can find information, and/or buy things).

  Now, you can either wait for Symantec to ship you the box with the Norton Antivirus CD in it, or you can choose to install the program on your computer right over the Internet. If you chose to install it right over the Internet, you would be "transferring a file" (the Norton Antivirus Program) over the Internet to your computer, from Symantec.

  Symantec has a special Server computer they use just for this purpose. It's called a File Transfer Server. All it does all day long is send copies of Symantec's software programs to the Home Computers of people who buy their software online.

  This special Server uses something called **File Transfer Protocol** (there's that word 'Protocol' again; remember it?). So, it's called an **FTP Server** for short.

  File Transfer Servers always have Domain Names that start with the Host "**ftp**". It keeps them separate from regular old Web Server (**www**) computers.

  So, after you *buy* the software program at their regular **www** site, they will send your computer to their **ftp.Symantec.com** site. That's where you would Download (File Transfer) the Norton Antivirus Program.

  The "**ftp**" Host Name at the beginning of "**ftp.Symantec.com**" simply tells the Internet that you want to go to a **File Transfer** Server *instead* of a regular old **Web Site** Server!

- **POP:** This **Host** Name stands for "**Post Office Protocol**". I'll bet you can guess what kind of Internet **Server** uses *this* Host Name! That's right...**Email Servers**. The "**pop**" Host Name, (as in the **Domain Name** "**pop.GimmeMyEmail.com**") is the Host Name used for **Servers** that store Email. Whenever you tell your home computer to check your Email, it contacts a "**pop**" (Email) **Server**.

We'll get into other kinds of Host Names and how they work in later Chapters. The important thing to understand here is that the "**www**" at the beginning of any **Domain Name** is called the "**Host**", and **"www"** simply tells the Internet that you want to go to a regular old garden-variety **Web Site**. :o)

SLD: Second Level Domain

This is the part of the name that *you create yourself*. In my case, I chose "**WorldwideBrands**".

It's not easy coming up with a descriptive name that tells people what you do, is short enough to remember easily, and sounds halfway decent when spoken.

Domain Names should be short and to the point, and in my opinion, should not contain any hyphens (-), underscores (_), or anything else like that. That just confuses your customers. It's harder for people to remember those special characters, which makes the whole idea of making things *easier* to remember completely worthless.

You're going to come up with all kinds of wonderful **SLD's** for your online business. Then you're going to get very frustrated, because the obviously good ones are already taken! Don't give up, though...you'll find one. :o)

TLD: Top Level Domain

The "Dot-Com" (**.com**) part of the **Domain Name** is called a "**TLD**". That's Dweebish for

Top Level Domain.

In the earlier days of the Internet, there used to be six **TLD**'s. They were:

- **.com** (For **COM**mercial purposes, such as Business **Domain Names**).

- **.net** (For Inter**NET** providers; companies like "Earthlink.net", that you might buy your Internet Access from).

- **.org** (For non-profit **ORG**anizations).

- **.edu** (For **EDU**cational institutions, like universities).

- **.gov** (For **GOV**ernment agencies).

- **.mil** (For branches of the **MIL**itary).

Each *Country* also has its own Country Code **TLD**, or "**ccTLD**". For example, **.CA** for **CA**nada, **.MX** for **M**e**X**ico, etc.

In November 2000, the Internet Corporation for Assigned Names and Numbers (**ICANN**), a Los Angeles-based non-profit group that oversees the distribution of domain names, approved seven **new** TLD's. They are:

- **.biz** (Another **TLD** for businesses, as in "www.MyBusiness.biz").

- **.info** (Open for anyone to use, like "www.StuffToLearn.info").

- **.name** (For personal **Domains**, like "www.JohnSmith.name")

- **.pro** (For licensed Professionals, like "www.DrSmith.pro").

- **.aero** (For anything to do with air transport, like "www.SmithAirlines.aero").

- **.museum** (For Museums, like "www.NoseArt.museum").

- **.coop** (For co-operative organizations, like "www.TomsCreditUnion.coop").

More recently, even *more* **TLD**'s have become available, like **.TV**, for example. As you can see, even right from the beginning, there were many choices for **TLD**'s. However, *only one of the original six* was allowed to be used to register **Business Domain Names**.

Can you guess which one? You got it! **.COM!**

Because that was the *only* original **TLD** that was allowed for Business Domain Name registrations, and because Business Domain Name Registrations quickly became the **largest segment** of Internet **Domain Name** Registrations, **.COM** became the *most widely recognized* **TLD**. It became so well known that the whole Internet Business industry itself became known as **DOT-COM**s. If you were starting an Internet Business, you were opening a **DOT-COM**. If you were investing in an Internet Business, you were investing in **DOT-COM** stock.

Later on, businesses began using **.NET** and **.ORG** as well, but the damage was already done. **. COM** was King in the minds and memories of the general public, and there was no going back.

Think about it for a minute. If you know the name of a big company, and you want to find their Web Site, you can be pretty sure that you can add a **.COM** to that company's name and find them on the Internet, right? If I want to see Kodak's Web Site, it's a no-brainer to try "www.Kodak.com" without even knowing if that's right. I can be about 99% sure that this is where I'll find their site.

Another example of this: My company is Worldwide Brands, Inc. Type "www.WorldwideBrands.com" into your Browser, and you'll get my company site. :o)

Sites that use anything other than **.COM** are simply not as memorable.

For that reason, in my opinion, you should not try to use anything other than **.COM** when you register your own **Domain Name**. Oh, there will be plenty of people (especially those who "sell" **Domain Names**) who will tell you that you can use **.NET**, **.BIZ**, **.TV**, etc. for

your **Domain Name**. *Don't listen to them!*

Even though it seems that most of the really good names that end in **.COM** are already taken, do your best to stretch your imagination and come up with something good that's NOT taken in a **.COM**! Your business will sound more legitimate, and be more memorable if you do.

So again, the three parts of a **Domain Name** are:

1.   **Host** (**www**): Tells the Internet that you want to go to a regular old **Web Site**.

2.   **SLD** (**Second Level Domain**): "YourBusinessName" (Whatever great name you come up with for your **Domain**).

3.   **TLD** (**Top Level Domain**): **.com** (Or whichever **TLD** you decide to use at the end of your **Domain Name**).

As I said earlier in this Chapter, there are companies that will try to sell you Web Site Packages that *include* **Domain Names**. Sometimes that's OK. Sometimes it's not.

You need to be *sure* that what you are getting is a **real Domain Name**. Your **Domain Name** needs to:

- Start with a "**www**"

- End with a "**.COM**"'s (or another of the approved **TLD**'s, if you choose).

- Have an **SLD** (a *name of **your choosing***) in between.

Many times the **Domain Names** that come free with cheap Web Hosting are **not even real Domain Names**.

Let's say that I bought a Web Site from a cheap company called "Sites Is Us". They offer me a **FREE Domain Name** with my Web Site Hosting.

Now, I've decided to sell Left Handed Pants on my new Internet Store. So, I choose the **SLD** "LeftHandedPants".

What I *should* end up with when they give me this *free Domain Name* of theirs, is the **Domain Name** "www.LeftHandedPants.com". That is a **real Domain Name**. *That's what I want.*

I should be able to type "www.LeftHandedPants.com" into my Internet Browser on my computer, and get *my* Web Site on the screen.

However, with many of these freebies, what I *will* end up with is something like this: "**www.SitesIsUs.com/LeftHandedPants**"

That is not a real Domain Name! That's just THEIR (SitesIsUs.com's) **Domain Name** with a "pointer" to my Web Site (/LeftHandedPants) tacked on to it.

It *will* take my customers to my Web Site, no problem. However, it will be *easy to forget*, and it will make my business look cheap. Those are the *last* two things I want my **Domain Name** to do!

It's just a way for them to set me up cheaply, and I should not accept it.

So, what **do** I need?

The Bells and Whistles

For a very reasonable rate, you can get all the "Bells and Whistles" you need for your **Domain Name**. Now, the company that I buy my **Web Hosting** from also registers **Domain Names**. We're calling them "**Jim's Web Hosting Company**". They do provide some of the Bells and Whistles, but what they provide is not quite enough for me. So, I go to a *separate* **Domain Name Registrar** that DOES give me all the good stuff, and plenty of it! Through the rest of this Chapter, I'm going to show you what to do if you have to buy your **Domain Name** *separately* from your Web Hosting. It's the slightly more complex way to do it, but I want you to be prepared for the more complex option, just in case you need to use it.

Keep in mind, though, that all of this will work in basically the same way, whether you buy a *real* **Domain Name** from your Web Hosting Provider, or from a separate **Domain Name Registrar**.

Remember, now, you need a **real Domain Name**, like "www.LeftHandedPants.com".

Included with that **real Domain Name**, you need the following:

- **A Domain Name Control Panel**

- **URL Forwarding**

- **Email Forwarding** (at least 20 addresses)

- **DNS Services**

I talked about whether you will register your **Domain Name** with your Web Hosting Provider, or a separate Domain Name Registrar. **This is where you will make that decision**. If your Web Hosting Provider does *not* give you the **four options above** when you Register a **Domain Name** with them, then you need to find a good **Domain Name Registrar** who *does*.

We're about to get into the juicy stuff here, folks. It's pretty Dweebish, so instead of trying to just explain more concepts here, I'm going to take you through the registration and basic management of an actual **Domain Name**, and explain things as we go. It won't be exactly what you'll see when *you* do it, since all Domain Name Registrar's sites are different. It will, however, give you a good idea what you will be looking at when you do this for real.

So, let's start from the start, and go step by step through the process you need to follow to register and set up a **Domain Name**.

1. Setting up an Account

You're going to want to set up an Account with a *good* **Domain Name** registrar (a *registrar* is just a company that registers **Domain Names** for you).

You'll find a lot of **Domain Name** registrars who do **not** require that you set up an Account with them first. However, we're talking about using *good* **Domain Name** registrars here. Most of the good ones require that you set up an Account with them. Don't worry; the Account will be FREE. :o)

For this demonstration, I've set up a very simple, very basic **FICTIONAL Web Site** called "**Chris's Domain Names**". It's NOT a real web site, folks, so please don't go looking for it on the Internet! It's just a set of images designed to show you the things that a *real* **Domain Name registration site** should contain, so that you will be familiar with them when you do the real thing.

Through this demonstration, I'll be highlighting the things I'm talking about in RED.

So, let's look at the FICTIONAL Web Site called "**Chris's Domain Names**":

Above is a picture of "Chris's Domain Names" FICTIONAL Home Page. This fictional Web Site is bare bones, remember. When you go to a *real* **Domain Name** registration site, you'll see a lot more "stuff" cluttering up the pages. I've created this example to show you *just the things that you really need* from a site like this.

So, that's my first stop in registering my **Domain Name**. I'm going to set up a FREE Account with "Chris's Domain Names", so that I can register **Domain Names**, and **manage** the Names I Register. I'm going to Click on "**New Account**". (See it highlighted in RED in the picture above?).

That takes me to this page:

This is known as a "**TAC**" page. **TAC** stands for "**Terms and Conditions**". You're going to find that whenever you buy Web Sites, **Domain Names**, and many other things on the Internet, you will have to read and agree to a **TAC**. So, I'm going to *read* this **TAC** to be sure that I agree with all the **Terms and Conditions**. Once I do agree, I'm going to click the "**I Accept**" link at the bottom. That takes me to Chris's Domain Names' *free account setup form*.

Below is the first section of the information that Chris's Domain Names needs from me. It looks like a lot, I know, but any good **Domain Name** registrar is going to need this information, so don't let it make you nervous! I'm going to fill it out using my Business Name, but you can fill it out with your own name and leave the Business Name if you don't have one yet.

Chris's Domain Names
Domain Name Registration and Services

New Account

Please fill out the fields below. An Asterisk (*) denotes Required Fields.

Business Name:	Worldwide Brands, Inc.
Your First Name:*	Chris
Your Last Name:*	Malta
Address 1:*	2250 Lucien Way
Address 2:	Suite 250
City:*	Maitland
State:*	FL
Postal Code:*	32751
Country:*	USA
Email Address:*	info@worldwidebrands.com

As you can see, I've filled out my Business Information on this page.

The next thing I need to fill out is my Credit Card information, so that I can purchase **Domain Name** registrations using this Account:

Chris's Domain Names
Domain Name Registration and Services

My Account
New Account
Register a Name
Help
About Us

New Account
Please fill out the fields below. An Asterisk (*) denotes Required Fields.

Credit Card Information

Type of Card:*:	Visa
Expiration (mm/yy):*	02/06
Card Number:*	XXXX XXXX XXXX XXXX
Cardholder First Name	Chris
Cardholder Last Name:*	Malta
Cardholder Address 1:*	2250 Lucien Way
Cardholder Address 2:*	Suite 250
Cardholder City:*	Maitland
Cardholder State:*	FL
Cardholder Postal Code:*	32751
Cardholder Country:*	US

With my Credit Card information done, (above), the last thing on this Account setup page is to choose a Username and Password (my *Login* information):

Chris's Domain Names
Domain Name Registration and Services

My Account
New Account
Register a Name
Help
About Us

New Account
Please fill out the field below. An Asterisk (*) denotes Required Fields.

Login and Password Information

|	
Choose a Login ID:*	chrismalta
Choose a Password:*	example
Type Password Again:*	example

Submit

All right, now I've entered my Business Information, my Credit Card Information, and I've chosen the Username and Password I want. I'm done with this page, and I'm going to click the **Submit** at the bottom of that page, to finish setting up my Free Account with "Chris's Domain Names".

Once I've clicked **Submit**, I automatically get logged in to my new Account (below), and I'm ready to register my new **Domain Name**. As you can see, at this time I have **0** (zero) **Domain Names** registered with Chris's Domain Names:
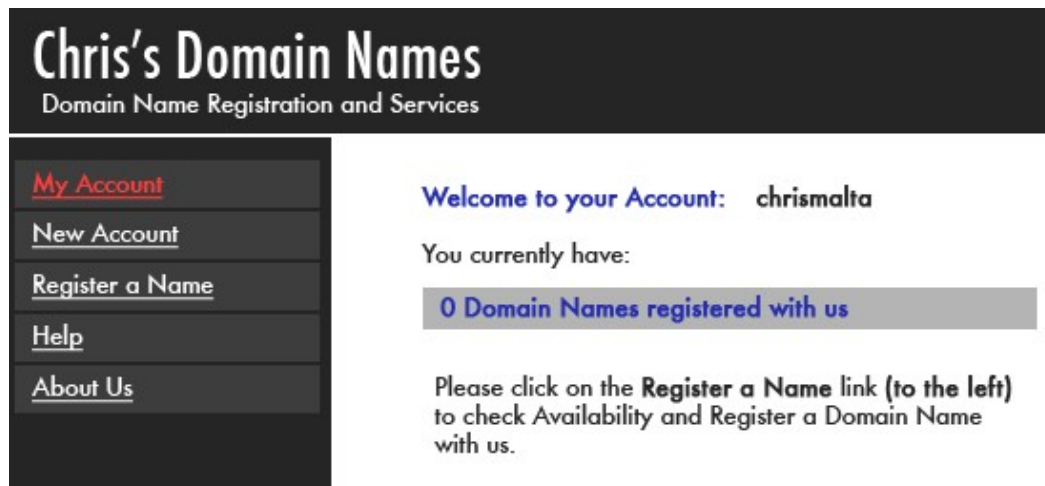
Ok, I've got my Account with a good **Domain Name** registrar. I'm "logged in" to that Account. I can either continue working from here, to check availability and register a name, or I can quit and come back later. If I decide to come back to Chris's Domain Names **later**, I can log back into my Account using the "**My Account**" link (see the RED highlight?), and my new Username and Password.

2. **Is my name available?**

After you decide what **Domain Name** you want, you must find out whether someone else has already taken that **Domain Name**. After all, there can only be ONE of each **Domain Name** on the Internet.

You can do this one of two ways. You can sit in front of your computer, making up names, and checking availability as you think of them. Or, you can make up a list ahead of time and check them all at once, when you have time.

Since I want to register "www.LeftHandedPants.com", I need to see if it's available, or if someone else has already registered it.

First I make sure I'm "logged in" to my Chris's Domain Names Account (below):

My Account page is telling me that I have **0** (zero, nada, zip, none!) **Domain Names** registered with Chris's Domain Names so far. It's also telling me that if I want to **check availability** of a Name, and/or **Register a Name**, I should click on the "**Register a Name**" link (highlighted in RED). So, I click on that link.
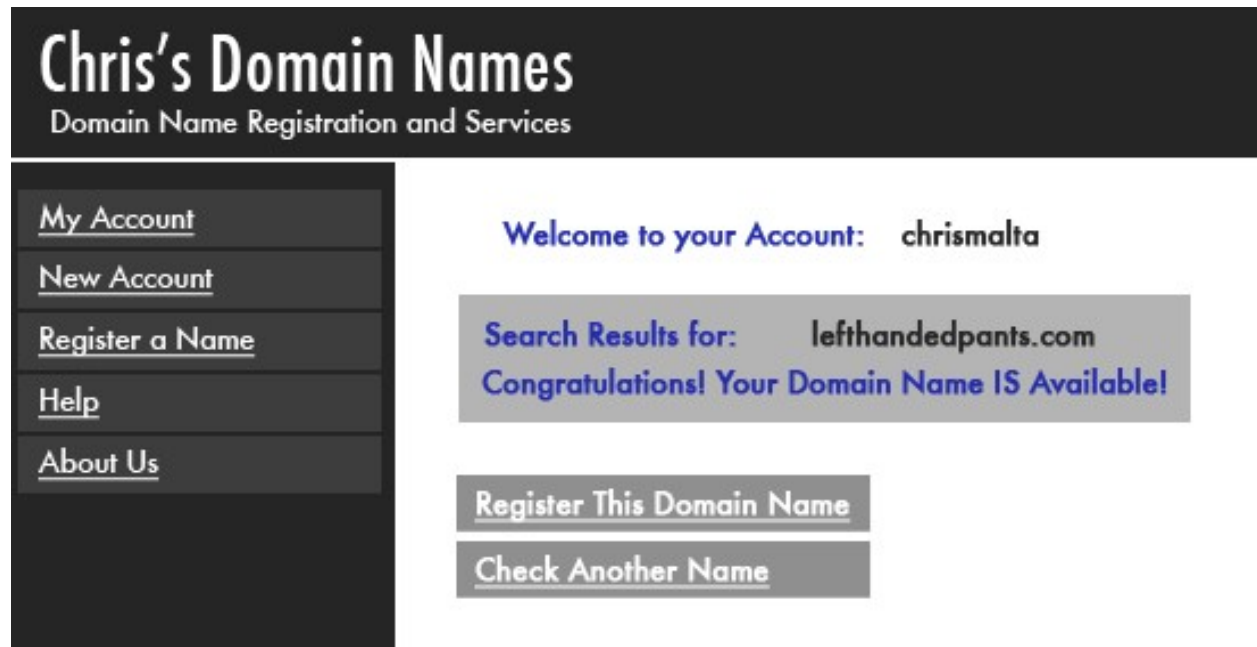
That brings me to this page:

This page is telling me that I am still logged in to my Account, and that I still have **0**

Domain Names registered. It's also telling me that I can check to see if the Name I want is *available*, by entering it into the "**Check a Domain Name**" box, and clicking "**Go**". So, I enter the Name "lefthandedpants" in that box.

Notice that I **did not** enter the "www" **or** the ".COM". I just typed "lefthandedpants". The "www" is already there, and so is the ".COM". I could have chosen another **TLD** (.NET, .ORG, etc.) by clicking on that little down-arrow next to the .COM, but I **want** a ".COM"), so I left it as-is.

Now, I click the word "**GO!**", to see if that name is available. Here's what I get back:

This page tells me that "lefthandedpants.com" **is** available. Great! I got the **Domain Name** I wanted on the first try!

Now, remember, this is probably NOT going to happen to you. The name "LeftHandedPants" isn't exactly in demand, so it's an easy one! You will probably have to go through this step a number of times before you find a name that you like, and is available. :o)

3. **Registering the Name**

The next thing I need to do is order my **Domain Name** registration.

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Search Results for: lefthandedpants.com
Congratulations! Your Domain Name IS Available!

Register This Domain Name

Check Another Name

Since I'm sure that I want to Register this **Domain Name**, I click on **"Register this Domain Name** now**".** That places my "www.LeftHandedPants.com" Domain Name Order in my "**Shopping Cart**":

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Shopping Cart:

Description:	Name:	Years:	Price:
Register Name	LeftHandedPants .com	1	29.95/yr

Check Out

The "Shopping Cart" is the center section of the page, where you see (from left to right):
- The "Description", which in this case is "Register Name", meaning I am ordering a Domain Name Registration.
  The "Name", which in this case is the Domain Name "LeftHandedPants.com".
- The "Years", which is the length of time I am Registering the Name for. I've decided

to Register LeftHandedPants.com for one year, since it's a new domain, and I don't know yet if my Left Handed Pants are going to sell very well. :o) I don't want to spend money for a multiple-year registration just yet. I can always renew the registration for many years at a time if I want to later.

- The "Price" of $29.95, which is a very reasonable price for all the "Bells and Whistles" that Chris's Domain Names provides. We'll get into those shortly.

Below all that, near the bottom of the picture you see above, is the Checkout button. I'm going to click that now, to actually purchase the Domain Name registration. Next, I get:

This page gives me a **Total Price**, and one final chance to Cancel, in case I've changed my mind, or in case I've hit the "Checkout" button by accident. :o) I'm not changing my mind, though...I'm ready to register my new **Domain Name**. So, I click the **Purchase now** button.

Success! The next page, below, shows me that I have successfully registered the **Domain Name** "www. LeftHandedPants.com":

Chris's Domain Names
Domain Name Registration and Services

- My Account
- New Account
- Register a Name
- Help
- About Us

Welcome to your Account: chrismalta

Thank You for your Order!

Your Order Reference Number is: JDISUY387

You have purchased the following Domain Services:

- Your Domain Name
- Email Forwarding
- URL Forwarding
- Domain Management Console
- DNS Services

See where it says, "Thank you for your order!"? Just below that it says "Your order reference number is:"? When you do this for real, you should write that down and save it for future reference.

Ok, so far I've done this:
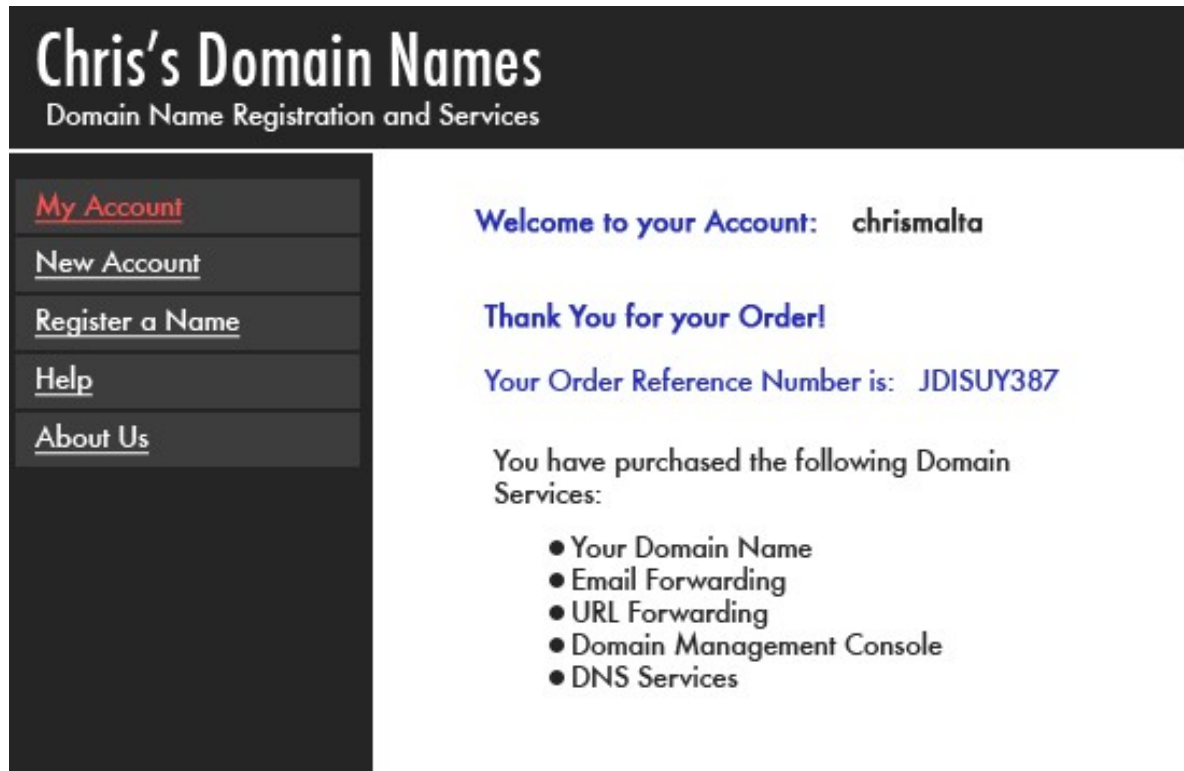
- I've set up a FREE Account with a *good* Domain Name Registrar.

- I've checked availability and found a good Name to register.

- I've registered and paid for my first **Domain Name**.

    o I've gotten myself a whole bunch of Dweebish things to learn about:

    o DNS Services

    o URL Forwarding

    o Email Forwarding

    o Domain Management Console

Sounds like fun, doesn't it! Don't worry, we'll figure it out. :o)

Let's start by going to my shiny, brand-new **Domain Management Console**.

4. Domain Management Console

Now that I have my first **Domain Name** registered with Chris's Domain Names, I want to try out my new **Domain Management Console**. (Some Domain Registrars call this a **Control Panel**). To do that, I'm going to go back to my **Account**'s "Home Page" by clicking on "**My Account**" in the Menu on the left side of the page:

Once I click there, I see my Account's Home Page (below). We've been there before, but it looks *different this time!* Instead of telling me that I have "**0**" **Domain Names** Registered, it now tells me that I have **1 Domain Name** Registered, and it gives me a "link" where I can "Manage" that Domain (See the RED highlight below):

That link is how I get to my **Domain Management Console** for lefthandedpants.com".

So, I click on the "**Manage This Domain**" link, and I'm taken to my **Domain Management Console** for "lefthandedpants.com":

Well, here we are, boys and girls! This is where the "rubber meets the road" where your **Domain Name** is concerned. :o)

We're going to delve deeply into the hidden caves and catacombs of the Dweebish world in the next few pages, so I'm going to go slowly, and explain this as thoroughly as possible, step by step. Please try not to jump ahead here…you could be jumping into the Dweebish Pit of Eternal Torture and Despair! These are some of the most closely guarded secrets of the Dweebish People, and they're not gonna make it easy for us!

Don't expect to pick this up all on the first pass, though. This is a Chapter you may be referring back to often in the future.

The last Management Console image shows us four options to use when managing a **Domain Name**:

- Contact Information

- URL Forwarding

- DNS Services

- Email Forwarding

We'll take each option one by one, and explore the details. Let's start with:

1. **Contact Information**

This is by far the easiest part of the Domain Management system. It's just what it sounds like, which is unusual for the Dweebish. :o) **Contact Information** just means **information about you**, the owner of the **Domain Name**. Let's take a look.

In order to work on my **Contact Information**, I'm going to click on that link in my **Domain Management Console** (see the RED highlight above). Then I get this page:

Notice that the **Contact Information** section, when I clicked on it, opened up into four separate **Contact Information sub-headings**. See the links highlighted in RED above? They are:

- **Registrant** (The person who actually Registered the **Domain Name**. In this case, that's me).

- **Administrative** (The "Boss" at **my** Company. In this case, that would be me! In your case, it will be *you*).

- **Technical** (The Technical person who is creating my Web Site and working in this **Domain Management** console. Again, in this case, that would be me).

- **Billing** (The person who gets to pay for all this! Once again, me. In your case, *you.* Aren't we lucky!).

Because you and I are small business owners, chances are that **all** of these Contacts are going to be the same. As I said above, these will all be **me** for the **Domain Name** "lefthandedpants.com".

In your business, they will probably all be you. However, you may use the services of a Web Designer to build and maintain your Web Site. In that case, for example, the **Technical Contact** would be **that person**, instead of **you**.

Let's take a look at these **Contact Information** pages.

In order to get to the **Registrant Contact Information page**, I'm going to click on the "**Registrant**" link above (RED highlight). That opens the following page:

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Registrant Contact Information

Business Name: Worldwide Brands, Inc.

Your First Name:*   Chris

Your Last Name:*   Malta

Address 1:*   2250 Lucien Way

Address 2:   Suite 250

City:*   Maitland

State:*   FL

Postal Code:*   32751

Country:*   USA

Email Address:*   infor@worldwidebrands.com

Save Changes

Back to Main Console

Does this page look familiar? It should! This is the information I entered when I first set up my Free Account with Chris's Domain Names. That's one of the reasons they wanted me to set up that Free Account in the first place; so that they can automatically place my information *here* in my Domain Management Console.

So, this is the **Registrant Contact Information** for my "lefthandedpants.com" **Domain Name**. If I want to update this information, I can do it any time. If I change my office

address, or my Email address, etc., I can go here and make those changes. It's important to keep this information up to date, so that my Registrar (Chris's Domain Names, in this case) can contact me to let me know about any issues or problems with my **Domain Name**.

If I wanted to make any changes here right now, I could simply type the changes into the page, and click the **Save Changes** button near the bottom.

I don't want to make any changes, though, so I'm going to go back to my "**Main Contact Information**" page. I do that by clicking on the "**Back to Main Contact Information**" link near the bottom right of the page above.

Chris's Domain Names
Domain Name Registration and Services

| My Account |
| New Account |
| Register a Name |
| Help |
| About Us |

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Click on the links below to manage:

Contact Information
    Registrant
    Administrative
    Technical
    Billing
                    Back to Main Console

Now I'm back in the **Contact Information** section of my **Domain Management Console**. As I said, the next thing I'm going to look at is my **Administrative Contact Information**. So, I click on the **Administrative** link (RED highlight). That takes me here:

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Administrative Contact Information

Business Name:	Worldwide Brands, Inc.
Your First Name:*	Chris
Your Last Name:*	Malta
Address 1:*	2250 Lucien Way
Address 2:	Suite 250
City:*	Maitland
State:*	FL
Postal Code:*	32751
Country:*	USA
Email Address:*	infor@worldwidebrands.com

Save Changes

Back to Main Contact Console

Notice that this page is exactly the same, except that it says **Administrative Contact Information** (RED highlight) instead of **Registrant Contact Information**. As I said before, this is simply where I enter information on the person that I want to be the "Administrator" of my **Domain Name**. As a small business owner, that would normally be **me**. However, if there were someone else in my Company acting as the "Boss" for these kinds of issues, and I wanted them to be the one to be contacted for any "Administrative" questions about my site or Domain, I would put *that* person's name and information here. Then I would click "**Save Changes**" at the bottom of the page.

All right, we've covered both **Registrant** and **Administrative Contact Information**. Here are the remaining two:

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Click on the links below to manage:

Contact Information
Registrant
Administrative
Technical
Billing

Back to Main Console

I don't think we need to put up any more graphics showing how to change **Contact Information**, do we? You get the idea. :o)

The two remaining kinds of **Contact Information** that I have in my **Domain Management Console** are

- **Technical Contact Information** has to do with who is doing the Technical work on my Web Site and Domain Name. If I decide to pay some Technical Wiz to create my Web Site, I can change my **Technical Contact Information** to that person's name. Why? Because that person may need to **Manage** my **Domain Name** while doing that work, and he or she may not be allowed to do that if he or she is not listed in my **Domain Name**'s **Contact Information**. For me, though, that information is the same as my **Registrant** and **Administrative Contact Information**, since I do that work myself.

□ **Billing Contact Information** is just what it sounds like. My **Domain Name** Registration has to be renewed in a year, since I only Registered it for one year, remember? If my Wife was handling my business bills, for example, I would want **her** to be the one who is notified a year from now that the **Domain Name** has to be

renewed. So, I would change that **Billing Contact Information** to **her** name and Email address. Again, for me, I do it all myself (as you probably will too). So, my info will remain the same there too; no need to change it.

There you have it! We've seen how to view and change (if necessary) the four types of **Contact Information** that you will find in your **Domain Management Console** when you Register your own **Domain Name**. Once again, they are:

- Registrant (The person who actually Registered the **Domain Name**. In this case, that's me).

- Administrative (The "Boss" at **my** Company. In this case, that would be me! In your case, it will be you).

- ☐ Technical (The Technical person who is creating my Web Site and working in this **Domain Management** console. Again, this would be me).

- Billing (The person who gets to pay for all this! Once again, me. In your case, probably you.). That's it for **Domain Name** Contact Information.

Let's click the "Back to Main Console" link at the bottom of that page, and **move on** to the next part of **Managing my Domain Name**.

1. **URL Forwarding**

As you can see from the image below, next I'm going into the "**URL Forwarding**" area of my **Domain Management Console**:

Chris's Domain Names
Domain Name Registration and Services

- My Account
- New Account
- Register a Name
- Help
- About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Click on the links below to manage:

- Contact Information
- URL Forwarding
- DNS Services
- Email Forwarding

Now, at this point, you may be asking, "What the heck is URL Forwarding?" Good Question! First, let's figure out what a "URL" is. This is a Dweebish Term, of course.

(*Dweebish Language Translation:*)

URL: "Uniform Resource Locator. A description of the location of a Web Site or File on the Internet."

Actually, you already know what a URL is, although you may not realize it. "www.WorldwideBrands.com" is a URL. "www.LeftHandedPants.com" is a URL. Pretty simple, right? For our purposes, URL is just the Dweebish name for "Domain Name". :o)

So, can you guess what I'm going to do when I use "URL Forwarding" area of my **Domain Management Console**?

This is where I am going to *make the connection* between my **Domain Name** and my Web Site's **IP Address**!
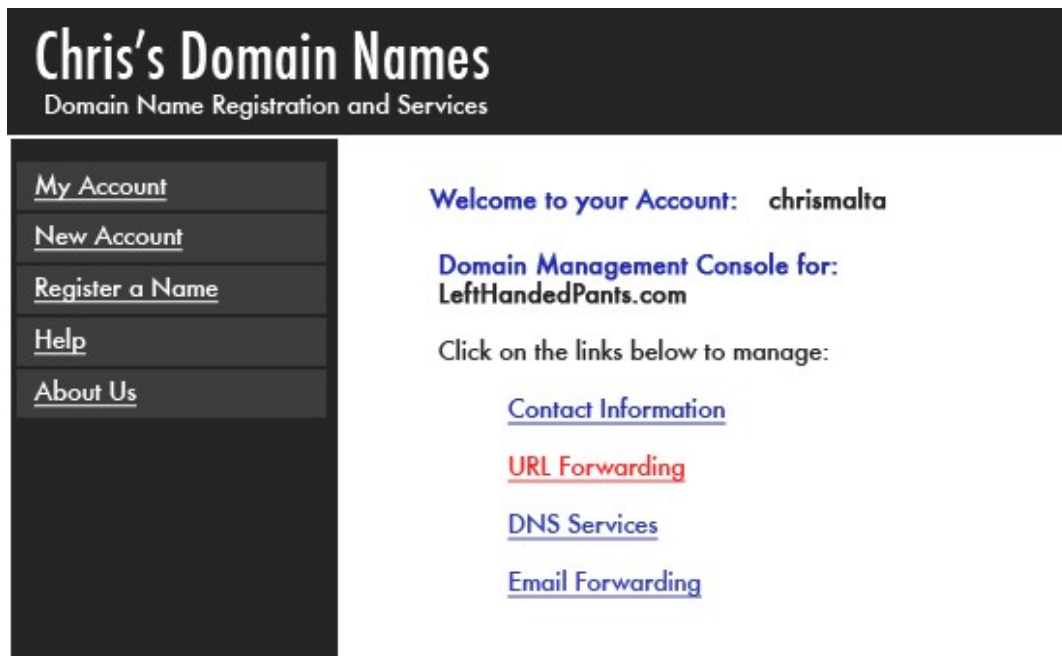
Remember when we talked about **Nameservers**? I'm about to give the **Nameservers** at Chris's Domain Names
the following information:

www.LeftHandedPants.com = 123.45.67.89

Does that look familiar? It should! This goes back to our Yellow Pages example; matching **Names** (Domain Names) to **Numbers** (IP Addresses).

This is where all those **Nameservers** around the world *get* that information from. They get it from people like *you and me* entering this information into Domain Management Consoles! I'm about to enter my Domain Name and IP Address information into the **Nameservers** at Chris's Domain Names. Those **ameservers,** being the gossipy little things they are, are going to start telling all the other **Nameservers** about it.

 So, let's take a look at that page once again:

I'm going to click on "URL Forwarding" (RED highlight). That takes me to this page:

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Host/Forwarding Management

Host	Address	Record Type	MX Pref
www	http://129.87.65.43	URL Forward	10

Save Changes

Back to Main Contact Information

See the boxes outline in RED? That's where I'm going to tell Chris's Domain Names' **Nameservers** to *forward* my URL (my Domain Name) to my **Web site's** IP Address, at Jim's Web Hosting Company. Notice that "**lefthandedpants.com**" is near the top of the page. The first box in RED on the left says "**www**". That's the **Host**. Put those two together, and you get "**www.LeftHandedPants.com**".

So, I want everyone who types the full Domain Name "**www.LeftHandedPants.com**" to be *forwarded* to the **IP Address** of my Web Site, over at Jim's Web Hosting Company.

Now look at the box in RED that's second from the left. It's called "**Address**". That is the **IP Address** of my Web Site. That's where I want my **Domain Name** to *forward* to.

In the picture above, Chris's Domain Names already has an **IP Address** listed in that box. However, that is NOT where I want my Domain Name forwarded to. It's simply an **IP Address** for the **Domain Name** itself, at Chris's Domain Names. I don't want my **Domain Name** to point to itself; I want it to point to my Web Site. So, I'm going to change that number to the **IP Address** of my Web Site.

Remember that I got that **IP Address** from Jim's Web Hosting Company, when I purchased my Web Site? It's 123.45.67.89. I'm going to click in that Address box, and change that **IP Address to** 123.45.67.89. I'm going to be *very careful* to *leave* the "**http://**" there.

Then, I'm going to make sure that the *next* box in RED says "**URL Forward**", because that's what I want it to do. :o)

After I type my **IP Address**, the Address box will look like this:

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Host/Forwarding Management

Host	Address	Record Type	MX Pref
www	http://123.45.67.89	URL Forward	10

Save Changes

Back to Main Contact Information

Domain Names are going to start talking. They're going to get good old-fashioned Gossip going, and they are going to start telling other **Nameservers** *all over the world* the following:

www.LeftHandedPants.com = 123.45.67.89

It's going to take about 72 hours (three days) for those gossipy little **Nameservers** to get the word out to all their friends all around the world. That process is called "**propagation**". After that, anyone who types, www.LeftHandedPants.com into a Web Browser will be taken to my site.

And there you have it, folks. That's one way that **Nameservers** get their information. They get it from people like *you and me*, when we make changes to Domain Name records like these.

There's no mystical, magical thing going on here. Just like all the listings in your local Yellow Pages were created by *people* at one point, so were all the millions of Domain Name-to-IP Address records that are held by **Nameservers** on the Internet.

Now let's talk about the difference between **URL Forward**, and **URL Frame**. Let's look at the **URL Forwarding** section of my **Management Console** again:

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Host/Forwarding Management

Host	Address	Record Type	MX Pref
www	http://123.45.67.89	URL Forward	10

Save Changes

Back to Main Contact Information
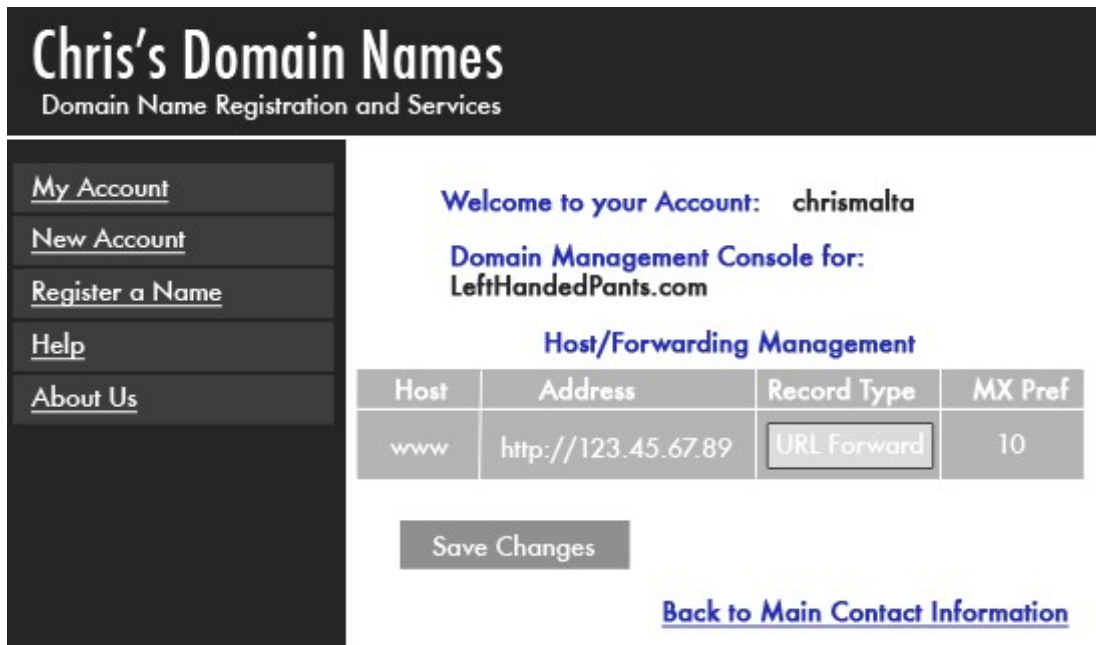
Notice that now, the **Record Type** box says **URL Frame** instead of URL Forward. What I've done is clicked on the little black "down arrow" to the right of the "Record Type" box. This brings up another possible "Record Type" choice I can create here. Go ahead and try it in the Image above…it'll work!

When I set up my URL Forwarding a few minutes ago, I created a **URL Forward** Record on the **Nameserver** at Chris's Domain Names. (This is also referred to as a **URL Redirect** on some sites; same thing).

There is another way to Forward a Domain Name to a Web Site. It's called a **URL Frame**. Let's look at the difference between a **URL Forward** and a **URL Frame**.

URL Forward

What I've shown you in the last example is a **URL Forward**. When someone types "www.LeftHandedPants.com" into their Computer Browser, their computer is going to say to a **Nameserver** somewhere, "Excuse me, what is the **IP Address** for 'www.LeftHandedPants.com'?"

Since the **Nameservers** at Chris's Domain Names have been telling all the other **Nameservers** around the world about the change I made, the answer will be, "Well, little Buddy, according to my records, the **IP Address** for 'www.LeftHandedPants.com' is 123.45.67.89."

That person's computer will contact that **IP Address,** and they will get to my Web Site.

However, when they arrive at my site, the **URL** that they will see in their *Internet Browser* will be my **IP Address,** *not* my **Domain Name**. For example, here's what they'll see then they get to my site:
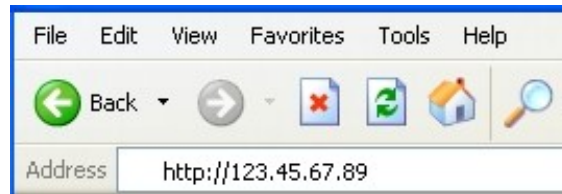
That's not necessarily a good thing. So, let's look at:

URL Frame

If I set the "Record" box in my Domain Management Console to **URL Frame** instead of URL Forward, the people who go to my web site will see my *Domain Name* URL in their Browser, like so:
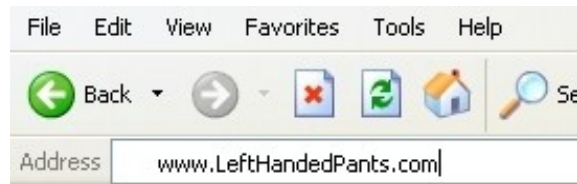
So, in the end, we need to understand how **URL Forwarding** works, but the **URL Frame** "Record Type" is the one you want to use when you do this.

Yes, I could have told you that right off the bat, but I wanted you to see how to change a Record Type. :o)

So, I'm going to change this Record Type to "URL Frame", and click the "Submit Changes" button. Then, I'm going to click the "Back to Main Console" link at the bottom of the screen, and move on to:

DNS Services

On my Domain Management Console page, I'm going to click **DNS Services**, as shown by the RED highlight below:
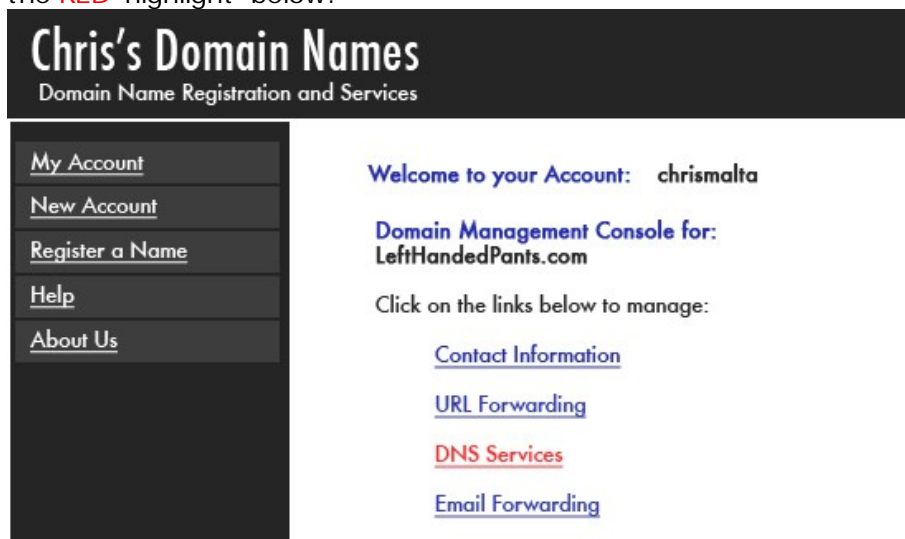
This takes me to the following page:

Whoa! What's all this!? Circle the wagons! The Dweebish are attacking!

No, don't worry...as usual, once you break it all down, it's not that bad. :o)

In fact, I'm sure part of this page looks familiar! It contains something I've already done. I've highlighted in RED the URL Forwarding that I did a little while ago. Remember when I pointed my **Domain Name** to my Web Site's **IP Address**, and set it as a "URL Frame" Record? That's right there, at the top, highlighted in RED.

You'll notice that there are lots of *additional* **options** as well now that we're into the full-blown "DNS Services" area.

Now, realistically, you will probably never do anything else in this DNS area yourself. URL Forward/ Frame is about it for most people. The rest of it gets into things you really should have the Tech Support people at your Hosting Company, or your Domain Name Registrar do for you if and when they are needed. However, I'm going to explain what these things are, just so you'll know what's going on if a Tech Support person ever mentions them to you.

Let's take a look at the sections of this page separately, and explain them. We'll start with the first "table" on the page:

I've already done my URL Forwarding or Frame, so I've "grayed that out". Let's take a look at the next two Host options in this table. They are "**Mail**", and "**@**". We'll start with "Mail", highlighted in RED.

Mail

Take a look at the **Mail** row in the **Host** column above, and then look across that row to the Record Type column. Right now, it shows "MXE (Mail Easy)".

There are two "Record Types" you can use when working with a Mail "Host". They are:

☐ **MXE (Mail Easy)**. This has to do with how Email is handled for your Domain Name. Before we're done with this Chapter, I'm going to end up with some Email Addresses that end with "@LeftHandedPants. com". That Email has to come to me, and go out to my customers through an **Email Server**. That Email Server **IP Address** is what goes in the "Address" box in this row. It's not something that I'm going to mess around with. Chris's Domain Names will set up that Email Server address FOR me; I don't have to do it, and neither do you. :o)

So, just remember that an MXE Record is simply the **IP Address** of an Email Server, it's assigned by your Hosting Company or Domain Name Registrar, and you don't have to do anything with it.

☐ **MX (Mail)**. An MX Record is the same thing as above. However, it has an extra feature. The word **Mail** (or any other word) can be used as the **Host** part of the Domain Name.

Why would I want to do that? I wouldn't! Neither would you. However, the Dweebish People do have their uses for things like that, so that's why it's there. :o)

Let's look at the next row:

@ The next Row (highlighted in RED) in this table starts off with the "At" Symbol; "@". This one is pretty simple. If I enter the **IP Address** of my Web Site into the Address Box in this row, someone can just type "LeftHandedPants.com" into their Internet Browser, and STILL get to my Web Site. They would not have to type the "www" part of the **Domain Name**.

Now, you may be thinking that this could be a pretty cool feature to use. Don't bother. The fact is that it's outdated. Internet Browsers today tend to automatically *add* the "www" to any Domain Name if someone doesn't type it themselves. So, this is another feature you don't need to worry about.

All right, those are the rows in my DNS Table that are *already filled in* when I first go there. Notice that I also have a couple of empty rows below them:

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Host/Forwarding Management

Host	Address	Record Type	MX Pref
www	http://123.45.67.89	URL Forward	10
Mail		MXE (Mail Easy)	10
@		URL Forward	10
		A (Address)	10
		A (Address)	10

Nameserver 1	ns1.ChrisDomainNames.com
Nameserver 2	ns2.ChrisDomainNames.com
Nameserver 3	
Nameserver 4	

Submit Changes

Again, these are boxes that you don't have to worry about. However, I should go through the things that they CAN be used for, just in case you get on the phone someday with a Tech Support rep that tries to talk down to you. :o)

Take a look at the "Record Type" column in this table. Notice that there is a little "down arrow" next to each record type? We've looked at this once before; let's do it again now. Go ahead and click on the Record Type box highlighted in RED **below**:

Chris's Domain Names
Domain Name Registration and Services

| My Account |
| New Account |
| Register a Name |
| Help |
| About Us |

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Host/Forwarding Management

Host	Address	Record Type	MX Pref
www	http://123.45.67.89	URL Forward	10
Mail		MXE (Mail Easy)	10
@		URL Forward	10
		A (Address)	10
		A (Address)	10

Nameserver 1	ns1.ChrisDomainNames.com
Nameserver 2	ns2.ChrisDomainNames.com
Nameserver 3	
Nameserver 4	

Submit Changes

See the other available Record Types that popped up? Wow, lucky us! A whole bunch of Dweebish Terms to learn!

Again, don't worry. We've already covered the only ones you need to know (URL Forwarding and URL Frame). We've talked about two of the ones you will never have to deal with (MXE and MX). Just two left to go! And guess what? You won't have to deal with these two new ones either. :o) It does, though, help to know what they are.

A (Address)

Remember a while ago, when we talked about the fact that there are different kinds of "Hosts"? We said that the Host "**www**" simply tells the Internet that you want to go to a regular old Web Site. We mentioned that sometimes, when you buy a Computer Program or some other kind of Electronic Product online, you can download it right to your computer. Those kinds of downloads are usually gotten from an **FTP** server, remember? FTP just means "File Transfer Protocol".

Now, let's say that I wanted to sell Computer Software on my LeftHandedPants Site as well as pants. I know, I wouldn't want to do that in the real world! This is just an example. :o)

I use my regular "**www.LeftHandedPants.com**" Site to tell people about the software, and to make the sale. BUT, I don't want my regular Web Site to handle *delivering* that computer software to my customers. That kind of thing can slow my Web Site down a LOT.

So, I also get an FTP Site from my Hosting Company. I don't want to have a *different* Domain Name for that FTP Site, right? So, I set up two different *Hosts* for the *same* Domain Name, and point each Host to a different IP Address. That has the *effect* of being two different Domain Names, but with the same SLD (the Second Level Domain you chose for your business).

- "**WWW**.LeftHandedPants.com" would point to the IP Address of the Web Site that I show and sell my products on.

- "**FTP**.LeftHandedPants.com" would point to the IP Address of the FTP Site that I send my customers to in order to get their downloads.

Again, this is something that the Tech people at your Hosting Company would do for you, but here's how it would look:

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Host/Forwarding Management

Host	Address	Record Type	MX Pref
www	http://123.45.67.89	URL Forward	10
Mail		MXE (Mail Easy)	10
@		URL Forward	10
ftp	32.109.67.55	A (Address)	10
		A (Address)	10

Nameserver 1	ns1.ChrisDomainNames.com
Nameserver 2	ns2.ChrisDomainNames.com
Nameserver 3	
Nameserver 4	

Submit Changes

I've highlighted this row in RED. If this "A (Address)" Record were added to my DNS section, customers would be able to access my FTP Web Site at 32.109.87.65 (or any other Web Site IP Address you put there) by typing "ftp.MyWebSite.com" into their Internet Browsers.

CNAME (Alias)

This is just what it sounds like; it's a way to create an "Alias" for a Domain Name. I'm not even going into an example here. Even in all my time in Computer System Engineering, I've

never had to use this one. :o)

Now, finally, there's one part of this table I haven't mentioned. Notice the last column, titled "**MX Pref**"? The number in the MX Pref field has to do with a *speed* setting in Email Servers *only*. You will never, ever have to touch this! In fact, you *shouldn't* ever touch it. Just knowing what it is, is good enough!

So, after all that, **the thing to remember** is that the only thing you should ever have to work with in DNS is your **URL Forward/Frame**. Everything else here is normally done for you by the Tech people at your Hosting Company or Domain Name Registrar. At least now, though, you can talk with a Tech about these things and not feel totally lost.
A Tech will treat you with a lot more respect, and be much more careful about handing your problems if they know that *you* know what you're talking about! Right? Hello? Um, are you still here? **Wake up, please!**

Ah, there you are! Try to stay awake…only one more section, and we're done with DNS! Let's look at my Domain Management Console's DNS Services page once more:

Chris's Domain Names
Domain Name Registration and Services

My Account	
New Account	
Register a Name	
Help	
About Us	

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Host/Forwarding Management

Host	Address	Record Type	MX Pref
www	http://123.45.67.89	URL Forward	10
Mail		MXE (Mail Easy)	10
@		URL Forward	10
		A (Address)	10
		A (Address)	10

Nameserver 1	ns1.ChrisDomainNames.com
Nameserver 2	ns2.ChrisDomainNames.com
Nameserver 3	
Nameserver 4	

Submit Changes

See the **Nameservers** section of this page? Let's take a closer look at it:

Nameserver 1	ns1.ChrisDomainNames.com
Nameserver 2	ns2.ChrisDomainNames.com
Nameserver 3	
Nameserver 4	

Chris's Domain Names is giving me room for four **Nameservers**. Generally I will only need two; a "Primary", and a "Secondary".

Nameserver 1 is the Primary. Nameserver 2 is the Secondary.

Hosting and Domain Name companies use two Nameservers for a very simple reason. If the Primary Nameserver fails, the Secondary Nameserver has all the same information, and it takes over until somebody fixes the Primary.

Notice that Chris's Domain Names has already filled in the names of their Nameservers for me. That's because I'm using *their* Domain Management Console, which is saving any changes I make here to *their* Nameservers.

When I set up my URL Forwarding and Saved the changes, those changes were saved on *their* Nameservers. Then, their Nameservers started telling all the other Nameservers around the world about my changes.

I'm going to leave these Nameservers exactly as they are. There's no reason for me to change them.

However, sometimes reasons DO come up to change them. Remember that I've registered my Domain Names with Chris's Domain Names because my regular Web Hosting Company, Jim's Web Hosting, doesn't have all the Bells and Whistles for Domain Names that Chris's Domain Names does?

Let's say that sometime in the future, my Hosting Company, Jim's Web Hosting, suddenly started offering all the same Bells and Whistles on Domain Names as Chris's Domain Names does. Some time goes by, and I end up registering some new Domain Names at Jim's Web Hosting, instead of Chris's Domain Names.
I decide that I like Jim's Domain Management Console better than I like the Console at Chris's. In that case, I can go into this page, and *change* my Nameservers from Chris's Nameservers to Jim's Nameservers. Then, I can use *Jim's* Domain Management Console to run this Domain.

Once again, this is something that may not ever come up for you. Even if it does, it's usually handled by the Tech people at whichever company you use. It's important, though,

to know what these things are and how they work.

All right, I'm finally done with DNS Services, and I'm going to Save any changes I made. Then, I'm going to click the "Back to Main Console" link at the bottom of my page, and move on to:

Email Forwarding

Email Forwarding IS something you will use!

When you own an Internet Store, your customers will need to contact you. They'll have questions, no matter how well you explain yourself on your site. When you are first starting out, the best method to give them to contact you is by Email.

When your company gets bigger, you will probably want to put a phone number on your site, to allow your customers to call you when they need to. That does give your business a more professional look and feel. That costs money, though, since it's not really practical to put your *home* phone number on your Store. Let's look at a couple of examples:

You're selling Wax Nose Sculptures on the Internet, and you've put your home phone number on your Internet Store, for your customers to contact you.

Example 1:

You're at home one afternoon, working hard on promoting your Internet Store, and you decide to take a much-needed bathroom break.
Joe Customer feels the need to ask you a question about one of the Roman Nose Sculptures on your site, before buying. Your phone rings, but you're in the bathroom, and don't hear it.

However, your very young son, who's busy watching cartoons in the living room, DOES hear it. He picks up the phone. Let's follow the conversation:
Your Son: "Ba-Bo?"
Joe Customer: "Uh....Hello?"
Your Son: "Ba-Bo? SHINNN!"
Joe Customer: "Um, is this 'Wax Nose Art Professionals, Inc.'?"
Your Son: "Ah FOOOO!"
Joe Customer: "<Sigh>. Young man, is your Mommy or Daddy there?"
Your Son: "DaDa! DaDa POTTY!"
Joe Customer: "Ah, okay, thank you...bye bye!" <click>.
Joe Customer has just been clearly informed that you are a small home business, and probably won't be calling back.

Example 2:

You're trying to run your Internet Store from your apartment, which you share with two other College Roommates. You're in class one morning, but your roommate, Bob, has no

class. He's home, sleeping off last night's Homecoming Party. The phone rings, and Bob reaches across the bed, under a half-empty pizza box, and fumbles the phone to his ear.

Bob: "Mmmm. What."

Joe Customer: "Ah, is this Wax Nose Art Professionals, Inc?"

Bob: "Huh? I dunno anybody named Art. Who is this? It's early, Dude!"

Joe Customer: "I'm on a Web Site for Wax Nose Sculptures…is this your company?"

Bob: "Ooohhhh! You're lookin' for Dave. Dave's not here, man!"

Joe Customer: "Okaayyy…when will Dave be back?"

Bob: "Dunno…later, maybe."

Joe Customer: <click>.

The point here is that your kids, your spouse, your roommates or anybody else in your house should not be in a position to answer your business phone calls. I myself have made calls to places I thought were businesses, and gotten answers like that. I never called them back.

I've also gotten responses from what were obviously home answering machines. Mood music, TV blaring in the background, etc. I never called them back, either.

Let's be clear on this point. There is **nothing wrong** with running a business from your Home. However, your business absolutely MUST look, feel and sound like a professional company. So, until you are in a position to hire an answering service, or install a dedicated phone line with a professional voice-recording, you should really limit your customers' ability to contact you to **Email**.

Now, if you are on the Internet at all, you have a personal Email Address. Nothing fancy, probably. Let's take an example of a personal Email address: "ChrisMalta@xyx.com".

Let's say that this is my personal Email Address. I open my Left Handed Pants Internet Store. My customers are going to have questions, and will need to Email me. That means that they are going to have to send their questions and comments to my personal Email Address, since it's the only one I have.

However, it's not going to look very good to my Left Handed Pants customers if the Email Address on my site is "ChrisMalta@xyx.com". That's a dead giveaway that I am a small operation, and it's hard to convince people to spend their money with me when they know that I'm working out of my home.

Sure, I could go get one of those Free Email accounts from someplace like Hotmail, or Yahoo. I could get myself set up with something like "LeftHandedPants@Hotmail.com", right?

Not a good idea! People who shop on the Internet are not stupid. They know a Free Email account when they see one, and it *will* cause them to lose confidence in my business.

So, what do I do?

This is where Email Forwarding comes in.
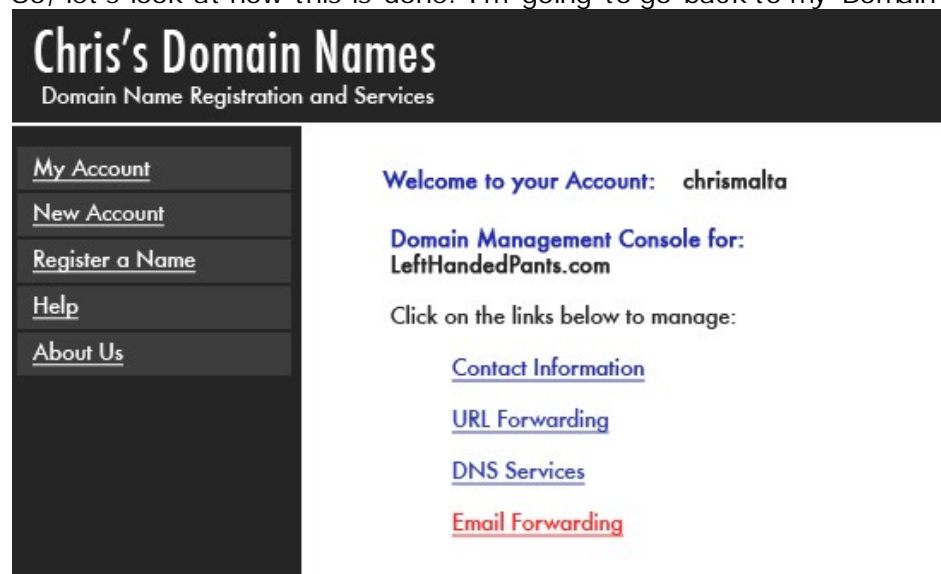
Through this Chapter, I've shown you how I've set up and Managed the **Domain Name**

"LeftHandedPants.com".

Since I have that Domain Name, I can use Email Forwarding to create Email Addresses like

these...

- Info@LeftHandedPants.com

- CustomerService@LeftHandedPants.com

- Help@LeftHandedPants.com

- Shipping@LeftHandedPants.com

...and any other **Email Addresses** I want to, and have them all **Forward** to my personal Email Address, without my customers ever knowing it!
Pretty cool, huh!

So, let's look at how this is done. I'm going to go back to my Domain Management Console.

Chris's Domain Names
Domain Name Registration and Services

| My Account |
| New Account |
| Register a Name |
| Help |
| About Us |

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Click on the links below to manage:

Contact Information

URL Forwarding

DNS Services

Email Forwarding

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Email Forwarding

Username	Domain	Forward to:
	@LeftHandedPants.com	
	@LeftHandedPants.com	
	@LeftHandedPants.com	
	@LeftHandedPants.com	
	@LeftHandedPants.com	

Submit Changes

This is my Email Forwarding area in my **Domain Management Console**. Again, it may look a bit different with the Domain Name Registrar you use, but the basic elements are always the same. So, let's get started.

The first thing I want to do is give myself a *personal* Email Address that I can put on my site. See the "Username" column? This is where I put whatever I want the first part of the Email Address to be.

I want this Email Address to be "Chris@LeftHandedPants.com". So, I'm going to put "Chris" in the first Username box. Notice that the "@LeftHandedPants.com" part of the Email Address is already there, in the middle column.

Then, on that same row, I have to tell my **Domain Management Console** which Email Address I want that to *forward* to. Since the only Email Address I have is my personal one, "ChrisMalta@xyx.com", that's what I put there.

I end up with this:

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Email Forwarding

Username	Domain	Forward to:
Chris	@LeftHandedPants.com	ChrisMalta@xyx.com
	@LeftHandedPants.com	
	@LeftHandedPants.com	
	@LeftHandedPants.com	
	@LeftHandedPants.com	

Submit Changes

Now, when I click on the Submit Changes button at the bottom of the page, any Email that anyone sends to "Chris@LeftHandedPants.com" will actually be delivered to my *personal email account*, "ChrisMalta@xyx.com!

I'm not ready to Submit (Save) my changes yet, though. I can make my Internet Store look like an even bigger operation by creating some more Email Addresses. So, I'm going to create the following:

- Info@LeftHandedPants.com

- CustomerService@LeftHandedPants.com

- Help@LeftHandedPants.com

- Shipping@LeftHandedPants.com

I'm going to set them all to forward to the only REAL Email Account I have; "ChrisMalta@xyx.com". Here's what my Email Forwarding area will look like when I'm done:

Chris's Domain Names
Domain Name Registration and Services

My Account

New Account

Register a Name

Help

About Us

Welcome to your Account: chrismalta

Domain Management Console for:
LeftHandedPants.com

Email Forwarding

Username	Domain	Forward to:
Chris	@LeftHandedPants.com	ChrisMalta@xyx.com
Info	@LeftHandedPants.com	ChrisMalta@xyx.com
CustomerService	@LeftHandedPants.com	ChrisMalta@xyx.com
Help	@LeftHandedPants.com	ChrisMalta@xyx.com
Shipping	@LeftHandedPants.com	ChrisMalta@xyx.com

Submit Changes

Once again, when I "Submit Changes", all of those new Email Addresses will forward to my personal Email Account. I now have the following professional-looking Email Addresses that I can put in different places on my Internet Store:

- Chris@LeftHandedPants.com

- Info@LeftHandedPants.com

- CustomerService@LeftHandedPants.com

- Help@LeftHandedPants.com

- Shipping@LeftHandedPants.com

My customers can use any one of them to contact me. No matter which one they use, I will get their Emails at my personal AOL Email Account.

I can create forwards to other people, too. Let's say that my business partner handles Orders for our Internet Store. His personal Email Address is "SnakesRCool@xyx.com". In my **Domain Management Console**, I create an additional Email Address for Orders, like so:

Chris's Domain Names
Domain Name Registration and Services

My Account	Welcome to your Account: chrismalta
New Account	**Domain Management Console for:**
Register a Name	LeftHandedPants.com
Help	**Email Forwarding**
About Us	

Username	Domain	Forward to:
Chris	@LeftHandedPants.com	WeLuvPuppies@aol.com
Info	@LeftHandedPants.com	WeLuvPuppies@aol.com
CustomerService	@LeftHandedPants.com	WeLuvPuppies@aol.com
Help	@LeftHandedPants.com	WeLuvPuppies@aol.com
Shipping	@LeftHandedPants.com	WeLuvPuppies@aol.com
Orders	@LeftHandedPants.com	SnakesRCool@xyx.com

Submit Changes

See the bottom row above? I've created "Orders@LeftHandedPants.com", and forwarded it to my partner's personal Email Address, "SnakesRCool@xyx.com". Any Email that anyone sends to "Orders@LeftHandedPants.com" will now go to my partner's personal Email Address

In this example, I've only shown you room for six Email Forwards. The **Domain Name Registrar** I use actually allows me **100** Email Forwards. I just didn't want to make the images here that big. :o)

So, that's what Email Forwarding is all about, and how it's done. Remember, this is a very important thing for your business. It not only makes your Home Business look larger and more professional, it allows you to sort your incoming email so that you can keep better track of it.

Now, you may end up with a Web Hosting or Domain Company that actually gives you Email *Accounts*, instead of just Forwarding. That's a little different, and we'll cover it in Chapter Seven.

Okay, folks...we're just about done with **Domain Names**. There's just one more thing I want to mention to you:

Multiple Domain Names:

You can point as many **Domain Names** as you want, to one Web Site.

Remember that my Web Site is hosted by Jim's Web Hosting Company, and has an **IP Address** of 123.45.67.89?
Remember that I Registered the **Domain Name** "www.LeftHandedPants.com" with Chris's Domain Names, and used URL Forwarding to attach it to my Web Site's **IP Address**?

Because of all that, anyone who types "www.LeftHandedPants.com" into their Internet Browser is going to end up at my Left Handed Pants Web Site.

What if I want to attach *another* **Domain Name** to that *same Web Site*?

No problem!

In the course of researching the products I want to sell, I find that some people refer to Left Handed Pants as "Southpaw Britches". I feel that if I have the **Domain Name** "www.SouthpawBritches.com", I can bring in even more sales.

So, I go back to Chris's Domain Names, and log in to my Account. I Register the **new** name "www. SouthpawBritches.com". Then, I go into my Domain Management Console for *that* **Domain Name**, and use URL Forwarding to Forward this new **Domain Name** to the *same IP Address* that I Forwarded "www. LeftHandedPants.com" to.

What I end up with is *two* different **Domain Names** that point to

the same site! You can do that with as many Domain Names as you like.

Okay, that's it for Domain Names, folks. Please hoist your chin up off your chest, and carefully screw your eyeballs back in. You made it!

Don't worry if you are left with a general sense of confusion at the end of this Chapter. It's normal, when dealing with the Dweebish. We're going to do a quick review of the concepts in this Chapter, to put it all into perspective a bit more. Again, don't expect to understand all this just from reading it! The understanding will come clearly when you actually start doing these things. Remember, also, to USE the Tech Support people wherever you buy your Web Hosting and Domain Names. That's what you're paying for, when you buy services from them! Just remember that the information you're reading here will give you a huge advantage over most people in Home Internet Business, and that this information **will all fall into place and become easier to understand** as you begin to work in your Internet Business yourself. :o)

So, let's go on to: Why the heck do I need to Understand this stuff?

In this Chapter, this question is a "gimme". :o) Understanding how Domain Names work is a very important part of your Internet Business. So, instead of trying to convince you of something you already know, let's use this space for a Chapter Review. Here's what we talked about in this Chapter:

   1. All computers that are connected to the Internet have an IP Address. All Web Sites have their own IP Address, too. When you buy a Domain Name separately from your Web Site, that Domain Name will have its own IP Address too.

   2. If you are planning an Internet Store Site, you need a Domain Name. If you are only planning to run Auctions, you do not need a Domain Name.

   3. Cut-rate deals on Domain Names are not always as good as they sound. You need a REAL Domain Name, with all the "Bells and Whistles" that we discussed.

   4. Everything on the Internet communicates by IP Addresses only.

   5. Domain Names are simply words that are shortcuts to hard-to-remember numbers (IP Addresses).

   6. Nameservers are Internet computers that act as "Yellow Pages" for matching Domain Names to their proper IP Addresses.

7. Domain Names are made up of three parts:

- The **Host** (www, ftp, pop, etc.).

- The **SLD** (Second Level Domain, the part of the name that YOU create).

- The **TLD** (top Level Domain, the ".com", for example).

8. A ".COM" name is the best choice for your Internet Store, without hyphens or other special characters.

You can get your Domain Name Registration from your Web Hosting company. However, if they don't provide the "Bells and Whistles", you can Register your Domain Name separately, and Forward it to your Web Site's IP Address.

URL Forwarding and Email Forwarding are the two "Bells and Whistles" that you will most likely use. The other parts of DNS Services are usually left to the Tech Support people, but you really should understand what they are and have a good idea how they work.

You can Forward as many Domain Names as you like to the same Web Site. Each Domain Name can be forwarded to a different area or "Page" in your site, if you choose. Or, they can all point to the same page. It's up to you. :o)

Believe it or not, just about everything we talked about is covered in those 11 simple Review paragraphs. Getting tired of talking about Domain Names? Me too...this was a LONG Chapter! Okay, let's move on to a **new Chapter**! :o)

Chapter Five
Server Computers

Would You Like Fries with That?

I've talked a little bit about Servers in the past couple of Chapters. Now let's spend some Quality Time talking about them; the actual Internet computers that are out there running the big show. :o)

Remember the Dweebish Language term "**Host Computer**?" A bunch of Workstation Computers (like your Home Computer, for example), connect to a Host Computer. Then the Host Computer connects to another Host Computer that has Workstations (Home Computers) connected to IT. Then THAT Host connects to another Host, and another

one. Pretty soon, you have a huge number of Workstations (Home Computers) all talking to each other through a bunch of Host Computers.

That, as we said in the last chapter, is a **Wide Area Network**, and that's what the **Internet IS**. Well, somewhere along the line, over the last decade or two, the King of the Dweebish People decreed that the role of the Host Computer was going to expand, so that it could do more than just connect a bunch of other computers together. After all, what good is a Host who just sits around and does nothing? Let's go back to our example of the Party at your house. When Jerry showed up with the Cheetos and YooHoo, he probably put them in the kitchen, right? How are your other guests, Janet and The Weird Guy, going to get ahold of some Cheetos and YooHoo for themselves? Would you expect them to each go into the kitchen, open the cabinets, take out bowls and glasses, and then fill their own bowls with Cheetos, and pour their own YooHoo into their glasses?

Of course not! Being a good Host, **you** are going to do that, and **Serve** the Cheetos and YooHoo to your guests.

That's what they call it at restaurants, right? "Hi, I'm Michael, and I'll be your **Server** this evening!" Michael's job, as your **Server**, is to get you whatever you need while you are at that restaurant.

From the **Server** at McDonald's ("Would you like fries with that?") to the **Server** at a fancy restaurant ("An excellent choice, Ma'am! That wine will be $400 a bottle."), a **Server**'s job is to take care of all your needs while you are at the restaurant.

You, as Host of your Party, have the same obligation.

As a Host, you have provided the *location* where everyone can meet. Because your guests (Workstations) can all get together at your house, they can all communicate, or "Network"

together.

But again, somewhere along the line, the Dweebish People decided that a Host Computer that was just connecting other computers was no longer enough. As computers grew more and more complex, a Host Computer could be used for more than just sitting around providing a place for Workstations to get together.

Just like you, as a good Host, would be expected to provide for ALL the needs of your guests, so should a Host Computer be able to do the same for it's Workstations.

Now, The Dweebish People being who they are, the function of a Host Computer can't be changed without the *phrase* "Host Computer" being changed as well. So, for general use, the phrase "**Host Computer**" was changed to the phrase "**Server Computer**". These days, everybody simply calls it a "**Server**".

(Dweebish Language Translation:)

Server: "A Computer that serves the needs of other computers that are connected to it."

That's pretty simple, right? By logging on to the Internet, Workstation (home) computers are connecting to a **Server**, and the Server "serves the needs" of the Workstation computers. However, there's something missing here!

What exactly *are* the needs of the Workstations (home computers) that are connected to the **Server**?

To figure that out, let's go back to your Party for a while. This time, though, let's make it a *Meeting.* Instead of just hanging around and talking, we'll say that You, Janet, Jerry and The Weird Guy are all members of the International Nose Hair Society, dedicated to educating the public about properly trimming unsightly nose hair. You are the Host of the weekly International Nose Hair Society Meeting.

As the Host at this meeting, you have to do the following things:

1. <u>"Meet and Greet" your Members at the door, and check their Membership Cards.</u>

   The International Nose Hair Society requires an annual Membership. No one gets into your meeting without a Membership Card! Sometimes you wish that The Weird Guy would forget his, so you don't have to let him in; he never trims properly!

2. <u>Make sure that everyone gets his or her copy of The Weekly Tweezer, and other relevant materials.</u>

   The Weekly Tweezer is the International Nose Hair Society's weekly newsletter. It tells Members what's going on with the International Nose Hair Society, and also talks about current interesting news and events. Naturally, it contains advertising as well. You need to make sure that every Member gets a copy. There are also pamphlets, fliers, booklets, and other materials that give people information they might want or need. Those have to be made available too.

3. <u>Make sure that any messages from the Home Office that are supposed to go to individual members get passed out.</u>

There are some people at the meeting who are waiting for their Permanent Membership papers to come through. Others have done a good job in the annual "Trim a Neighbor's Nose Hair" drive, and are waiting for their Certificates of Merit. And so on. There is "mail" from the Home office, and you have to pass it out!

Those are your basic functions as Host of your International Nose Hair Society meeting.

Now let's say that the International Nose Hair Society has become wildly successful over the past few years, and you expect *hundreds* of Members to attend your Meeting. You can't do everything yourself anymore, can you? It's just too much work! You'll have to recruit *other* Hosts in order to cover all the jobs that need doing. You'll need to have:

- A Host at the Door, to "Meet and Greet" Members and check to be sure their Membership cards are up to date.

- Another Host to pass out copies of "The Weekly Tweezer" Newsletter, and other pamphlets, fliers and booklets to the Members who want more information on a variety of subjects.

- Another Host to pass out Mail from the Home Office to individual Members.

Now, let's relate this to Computers on the Internet.

Remember that the phrase "**Host Computer**" was changed a long time ago to the phrase "**Server Computer**". These days everybody just says "**Server**", for short. So, we will no longer refer to "Host Computers". We'll call them a "**Server**", or "**Servers**".

Let's take a look at your International Nose Hair Society Meeting, and relate it to Computers and the Internet.

1. <u>Meet and Greet your Members at the door, and check their Membership cards.</u>

Since we're talking about Computers and the Internet now, you and your fellow Hosts are no longer the Hosts of a Meeting. You are **Server Computers**, or **Servers,** for short. The International Nose Hair Society Meeting is the **Internet**.

As **Servers**, you're there to provide your Members (Workstation Computers) with whatever they need while they're at your Meeting. The first thing that must be done is to Meet and Greet your Members (Workstations) at the door, and check their Membership Cards to be sure they are current.

Have you ever wondered just what happens when you connect to the Internet? People commonly use the phrase "going online", or "going on the Internet", but what

does that really mean?

Let's remember what we talked about in Chapter Two. The **Internet** is really just a bunch of **Servers** (Host Computers, remember?) that all have Workstations (Home Computers) connected to them. Those **Servers** are *also* all connected *to each other*, to form a huge, worldwide "**WAN**", or **Wide Area Network**. *That's the* **Internet.**

All over the world, there are thousands and thousands of metal racks. Each one of them is about the size and shape of a telephone booth. Permanently mounted on each one of those racks are several **Server** computers. Each one of them looks very much like a futuristic stereo receiver.

A Server Rack

That's right; every one of those *twenty* stereo-receiver-lookin' things in that telephone booth sized rack is a **Server** computer. Each **Server** is much faster and more powerful than your Home Computer. The **Servers** on the rack above are all exactly the same kind of computer, but many of them will be set up to do different jobs, like the Hosts at your Meeting.

So, when you use your Home computer to connect to the Internet, you are **connecting to a Server**.

If you use AOL, for example, and connect to the Internet over your phone line, you hear a lot of bleeps and whirls and whistles from your computer. What exactly is all that noise?

That, my friends, is the ultimate in Dweebish Language. You are actually listening to your computer's "voice" as it dials your Local AOL phone number, and talks to another computer over at one of AOL's many Networking Centers around the world. What AOL computer is your Home Computer whistling and bleeping at?

An *Authentication* **Server**.

 This is the **Server** that "Meets and Greets" AOL Members "at the door". It's one of those futuristic looking computers sitting in one of

these phone-booth sized racks, somewhere out there in the world. Why is it called an **Authentication Server**? Let's think about what it does.

The *Authentication* **Server** "answers the door" when your computer shows up knocking at AOL.

It performs what is called a "Handshake". That means that it "Greets your computer at the door", by making sure that both the **Authentication Server** and your computer are "speaking the same language".

It asks your computer for your AOL Username and Password, and Authenticates them (makes sure your AOL account is paid up!). In other words, it checks your "Membership Card" to make sure it's still good.

It assigns an IP Address to your computer for the duration of the time you are connected.

So, like the Host who "Meets and Greets" your Members at your International Nose Hair Society meeting, an Authentication Server is your first stop when you connect to the Internet.

This same Authentication Server is the one that will keep you connected to the Internet while you are "online". If your Username and Password (Membership) is expired, or hasn't been paid up with AOL, for example, you get a message on your Home Computer screen from the Authentication Server that says something like:

Connection Failed:

Password Invalid

That message usually means it's time to whip out the ole Credit Card, and call AOL Customer Service to catch your account up to date. :o)

Ok, so we know what happens when someone connects to the Internet (shows up at the Meeting). An **Authentication Server** says "Hey, there!" to their Home Computer, and checks their Username and Password (Membership) to make sure it's current. If it is, that Home Computer is assigned an **IP Address**, and connected to the Internet through AOL's Authentication Server. If the Username and Password fail, the **Authentication Server** says, "No, no, no! Your Membership is not paid up; you can't come in!" and disconnects their Home Computer from AOL. It's all basically the same thing as the Host at your Meeting who is checking Membership Cards at the door.

All right, what's next?

2.   <u>Make sure that everyone who wants one, gets his or her copy of The Weekly Tweezer.</u>

The Weekly Tweezer is very important to the International Nose Hair Society. It does many things for both the Members and for the Society as well. It passes along information that
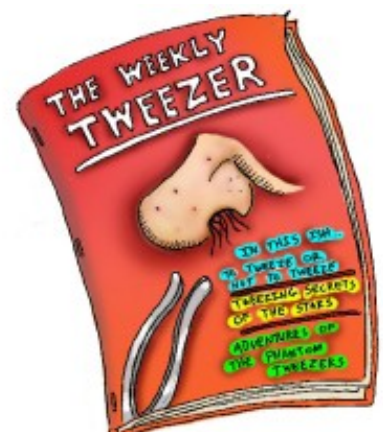
International Nose Hair Society Members need to have concerning their Society, and their Membership.

- It informs Members about new products and services that they can buy from the International Nose Hair Society, such as Left Handed Nostril Trimmers, and Nasal Follicle Reduction surgery. This helps the Society make money.

- It passes along World News and current events, so that the Weekly Tweezer is more interesting to read. The more interesting the Weekly Tweezer is to read, the more likely it is that Members will buy the products and services sold by the International Nose Hair Society's advertisers.

It contains advertising for businesses related to the Members' needs, like "Main Street Nasal Photographers, Inc." Main Street Nasal Photographers, Inc., and many other advertisers, pay for those ads in the Weekly Tweezer, which is another way that the International Nose Hair Society earns money.

It has references to all kinds of other interesting information about many other subjects that your Members might be interested in.

So, how does this relate to the Internet?

When you connect to the **Internet** through an **Internet** *Provider* like AOL, what's the first thing you see on your screen, after the **Authentication Server** lets you in? You see the AOL **Home Page**. The AOL **Home Page** is AOL's version of "The Weekly Tweezer" Newsletter. It contains information about your AOL Membership. It contains more products and services that you can buy from AOL. It contains *advertising*, and lots of it, because that's one way for AOL to make more money; they charge the advertisers *big* bucks for that ad space on their **Home Page**.

So, when you arrive at the Meeting (the **Internet**) through AOL, the first thing they do is show you their **Home Page**. They are *handing you a copy* of their version of The Weekly Tweezer Newsletter. What **Server**, exactly, is putting that page on your screen? In other words, which Host at the Meeting is handing you your copy of the Newsletter?

A **Web Server**.

A **Web Server** is just another one of those futuristic-looking boxes on that **Server Rack** a couple of pages back. Just a regular old **Server Computer** like all the other machines on the Server Rack. However, instead of being set up to *Authenticate* Memberships, it has been set up to **Serve Web Pages**.

There are *thousands* of AOL **Web Servers** out there on the Internet. Their job it is to **Serve** that AOL Home Page, and all AOL's other Web Pages, to the Home Computer screens of all AOL users. Just like the Host at your meeting who is passing out copies of The Weekly Tweezer.

(**Note:** AOL is not the only Internet Provider out there, by any means. There are thousands of them. I use AOL as an example because it's such a standard, well known Internet Provider).

So, you've connected to the Internet through an **Authentication Server**. That Authentication Server belongs to AOL, so naturally the first place it's going to take you on the Internet is the AOL Home Page, on one of AOL's **Web Servers**.

AOL's Web Servers contain much more than just that Home Page. AOL's entire Website is contained, and *Served*, from AOL's Web Servers.

AOL is also certainly not the only company that owns Web Servers. There are thousands of companies out there that, together, own hundreds of thousands of Web Server Computers. Those Web Server computers "Host" Websites for people and businesses all around the world. Those Websites are what makes up the Internet that we see and surf every day.

3. <u>Make sure that any messages from the Home Office that are supposed to go to individual members get passed out.</u>

Permanent Membership Papers, Certificates of Merit, answers to questions that your Members have asked of The Immaculate Nostril (the Leader of the International Nose Hair Society). In other words, Mail from the Home Office. Someone at your meeting has to be the "Postman".

On the Internet, this function is performed by, you guessed it, an **Email Server**! This is one of those Servers that, instead of a "www" Domain Name, has a "pop" (Post Office Protocol) Domain Name, like "pop.GimmeMyEmail.com".

An Email Server is just another Server Computer like any other. This one, though, is loaded with specialized software that runs Email Accounts for people. AOL users, and pretty much anyone who watches TV, will recognize the phrase "You've got Mail!" When you log on to the Internet, if you are an AOL user, you will be taken to the Home Page of AOL's Web Server, as I said. At the same time, your computer will talk to one of AOL's Email Servers, and say, "Hi, there. Do you have any Email for this Account?"

The Email Server will check your Account. If there is Email waiting for you, it will make your computer say, "You've got Mail!"

We're going to talk about Email a little more, later in this Chapter. We're also going to discuss Email in depth in a later Chapter in this book. For now, it's enough to know that there are specialized Servers out there that handle Email that's coming to you (Incoming Email), and Email that you send to other people (Outgoing Email).

So, like the Hosts who **Serve** the needs of all the people at your International Nose

Hair Society Meeting, there are **Server** computers that **Serve** the needs of everyone who connects to the Internet.

ISP vs. Web Hosting Company

Companies like AOL provide your *access* to the Internet. That means that they give you phone numbers to dial, or those faster "Broadband" connections that keep your computer connected to the Internet at all times.

Companies like that are called "ISPs". ISP stands for "Internet Service Provider". An ISP simply *connects you* to the Internet. They *don't* necessarily provide you with the ability to create your own Website as well.

It's important to understand the difference between an ISP and a Web Hosting Company.

- An **ISP** (Internet Service Provider) simply allows you to connect to the Internet. You pay them a monthly Internet Access fee for your Account. AOL is a perfect example of an ISP.

- A **Web Hosting Company** rents you "space" on one of their Web Servers, which gives you a place to create your own Website.

Many times these large companies do both. AOL allows you to create your own personal Website on their Web Servers, for example. That's something that comes "free" with your Account. However, Websites that you create on your ISPs Web Servers are usually very limited in size and capability. They are also usually restricted to *personal use*, and you are not allowed to use them for business.

So, when you're ready to create your **Business** Website, you are most likely going to have to contact a separate Web Hosting Company.

Understanding what a Web Server really is

A good way to get a better feel for what a Web Server, and the other Servers that run the Internet really are, let's look at a small version of a Web Hosting Company.

Just like you and me are interested in getting into business selling products on the Internet, there are other people out there who want to get into the business of providing us with the Websites that we sell those products on.

I'm not talking about designing and building Websites for people. That's a different ball game altogether. I'm talking about someone who actually wants to own the computer that other people's Websites live on. That's a business in itself, and a good one for those who do it right. It takes a good deal of money to get started, though.

So, to get a better feel for exactly what a Web Server is, let's follow along with a guy named Joe Webb, who wants to set up his very own small Hosting company, beginning with

just one Web Server. He's going to buy a Server computer, connect it to the Internet, go out and get himself some customers, and provide them with a place to create their business Websites, and make those Websites available to the world via the Internet.

Joe Webb's friends call him Spider. Can you blame them, with a last name like Webb? Can you blame him, for feeling like he needs to be involved in Web Servers? :o)

Spider has Dweebish blood in his veins, no doubt about it. He's always fancied himself as a descendant of Dweebish Royalty, but has never been able to prove it to the King of the Dweebish. So, instead of being accepted into the Dweebish Royal Court, into the mysterious underworld where technical miracles are created, he has spent most of his career working for "Da Man", as a Computer Systems Guy in a big Corporation on the Surface World, with the rest of us regular ole Humans.

It's good work, and it pays well, but Spider has always wanted to work for himself. He's done a lot of work setting up all kinds of Servers for the big company he works for. He's also saved himself a few thousand dollars, and feels that now is the time that he's ready to break out of the Corporate world, and do something on his own.

In order to set himself up as a Web Hosting Company, and Host Business Websites for people, he has a few things to do first.

Getting Legal

The first thing that Spider has to do, just like all of us in business have to do, is get legal. He goes over to his local County Office Building, and files the paperwork necessary to form a company called "Spider's Webb Hosting". He thinks this is a pretty clever name. He opens a Business Bank Account, and a Merchant Account, so that he can accept his customers' credit cards. Since he is going to Host Websites for businesses, he could be responsible for someone's financial losses if something goes wrong and one or more of those Websites fail because of his equipment. So, he also purchases Business Insurance.

Enter the Machine

The next thing Spider needs is a Computer that he can use as a Web Server. Now, he could use a regular old Home computer, but he knows that before too long he will overpower that computer. The more customers he signs up, the more Websites his Server Computer will have to Host, and the more powerful it will need to be.

Home Computers today, off the shelf, come with enough built-in hardware to make the machine work fast enough to keep its owner happy. Surf the Internet, write some letters, send some Email, play a couple of games, do the Home Accounting. A Web Server, though, needs to be more powerful, as I said. A Home Computer has ONE user at a time. A Web

Server computer has MANY users at once. Everyone who visits the Websites that live on a particular Web Server computer are "users" on that computer at the same time. Many Web Server computers look just like your Home Computer does. JUST like it. The difference is on the *inside*. A Web Server will have a faster Processor, and in most cases, *two* or even *four* Processors. For those who don't know, a computer's Processor helps determine how fast it works. No need to go into any Dweebish explanations there... that would be a different book entirely, and potentially a *really boring* one!

A Web Server will also have much more "RAM" than a Home Computer. RAM stands for Random Access Memory. Ever heard of a "Memory Upgrade" for your Computer? Like the Processor, the more RAM a computer has, the faster and more versatile it is.

Most Home Computers come with a single Hard Drive. The Hard Drive on your computer is like the File Cabinet in your office. It's the place where all the "stuff" in your Computer is stored. The computer games you play, the letters to your sister that you wrote on the computer, your home budget, etc., etc. A Hard Drive stores all those things inside your computer, so that you can bring them back up on your screen again for later use. A Web Server, though, will have multiple hard drives. Imagine that you have many very important documents.

Whenever you put one of them in your file cabinet, you make an extra copy of each one, and put the copy in a second file cabinet in another part of your house for safekeeping. That way, if one file cabinet gets destroyed, you have a "Backup" copy of your documents in *another* file cabinet.

That's why Web Servers, and other kinds of Servers, have more than one hard drive. The additional Hard Drives are "fail-over" drives, in case the main drive fails. They contain an exact duplicate of the info on the main drives, and automatically kick in and take over if there is a main Hard Drive problem. This keeps the Server running 24/7. So Spider has to buy a computer that he can use as a Web Server. Being a small business, he has to balance his need for speed and fail-over protection against a limited budget. He chooses a computer made by Compaq that has dual processors, a lot of extra memory, and two large hard drives. It's less powerful than a four-processor machine with several hard drives, but it will get the job done for now, while his company grows. He buys the machine for a few thousand dollars, and it's delivered to his house within a few days.

Choosing Software

Spider now needs Software for his Web Server. A computer without software is nothing more than a large paperweight. The software (Windows, for example) is what makes a computer do what it does. We've talked about Internet Service Providers, and how they have individual servers for different functions. The

Authentication Server, which makes sure that the person "logging in" has the right to do so. The **Web Server**, which is where Websites live. The **Email Server**, which handles a person's Incoming and Outgoing Email.

Spider's Webb Hosting is *not* an ISP, it's a Web Hosting Company. However, Spider needs those same **Servers**, because ISPs and Web Hosting Companies do many of the same things. In Spider's case, he's starting a small business, and he can't afford to use separate Servers. He can only afford the one Server Computer to start with. So, he's going to set his ONE Server up to handle *all three* of those functions at once.

You see, it's all in the software. An **Authentication Server** uses software that checks people's Accounts, and makes sure that they are allowed to "step through the door". A **Web Server** has special software that allows people to create and save Websites, and then **Serves** those Website pages to the world. An **Email Server** has "Post Office" software that handles Email.

While it's **not** really the best idea, you CAN put *all of that software* on *one* Server Computer. The problem with doing that is that the more different kinds of functions you make that machine perform, the slower it runs. If Spider forces his one Server Computer to do all those things, his customers might notice the slow downs. They could sit there in front of their Home computers waiting several minutes for their Email to show up from Spider's Server. People all over the world could have to sit and twiddle their thumbs while Web Pages from that Server load onto their screens very slowly.

It's going to be a balancing act between the power of Spider's Server and the number of Websites he allows to be built on it at one time. He's going to have to monitor the performance of the machine carefully, so as not to overload it. Hopefully, by the time he's sold enough Websites to his customers that his Server starts to slow down; he'll have enough money to buy a real Server Rack with more Server computers and shift some of the load over to the new machines.

So, back to the software that Spider has to buy. He's going to need several programs:

- An **Operating System:**

To most of us, an Operating System simply means Windows. The Operating System is simply the software that runs the basic functions of the computer, and allows *other* programs to load and run on that computer. Spider can use Windows too, but he can't use the Home Version. He'll have to use the Professional Version. The Professional Version of Windows is the version that provides the *Authentication* functions that Spider

needs for his Server.

Now, keep in mind that Spider's business is NOT an ISP! He's not acting like an AOL-type company, and allowing people to connect to the Internet. He's just a place where people can build their Websites. So, Spider does not need to check the Usernames and Passwords of everyone who will access his Server. Most of the people who will "use" his Server will just be people out there in the world who are surfing the Websites that Spider's customers have created on his Server. However, Spider's customers will have to be Authenticated. That's because his customers own the Websites on his Server and they will have to make changes to those Sites all the time. "Change" Access to those Sites has to be password-protected; otherwise any old person could come along and make changes to the Websites owned by Spider's customers. That would be a BAD thing. That's why Spider needs the ability to Authenticate those users who have the right to make changes to those Websites. The Windows Professional software provides that ability. That same software allows Spider to assign multiple IP Addresses to his Server. Remember when we talked about how each Website on the Internet has it's own IP Address? This software gives Spider the ability to give a unique IP Address to each Website that his customers create on his Server. (**Note**: There are a lot of hard-core Dweebish Folk out there who are going to tell me that I should mention that many Internet Servers use other kinds of Operating System software called UNIX and LINUX, instead of Windows Professional. Thanks, but **I don't want to hear it!** It's simply not important for our examples here. Windows is widely used for this, and it's more familiar to everyone as an example, so I'm using it!)

- **Website Creation** software:

A Web Server isn't a Web Server unless it has software on it that allows the creation and management of Websites. The best example to use here is a software package called Microsoft Front Page. This is the software that I use myself to create Websites, and it's also what Spider has decided to put on his Server.

The Front Page software that I use from my home is the same exact Front Page version that will go on Spider's Server. When it's installed on my Home computer, I can use it for just creating Web Pages. When it's installed on Spider's Server, he can activate special components of that software that allow it to perform special functions on a Web Server Computer.

However, Spider may end up with a customer who doesn't want to use Front Page; she wants to use one of the other popular Web Creation software packages that are out there. That's OK; Spider can install other software packages like that at the same time, on the same Server. Then he can offer a variety of "Supported Website Tools" to his customers. For our example, though, he's just installing Front Page. :o)

(Another Note: Please don't worry if any of this gets a little confusing! I'm just

giving you some "big-picture" information on how Web Hosting Companies do these things. You don't need to understand all of it, unless you are planning on opening your own Web Hosting Company! If so, I can refer you to other books. :o) So, again, I'm not attempting to explain this stuff in detail. I'm just giving you an overview. It's important information to understand, but you won't be tested on it. :o)

- **Email Software:**

  Yes, there is Email Software for Servers too. That software is what makes an Email Server act like an Email Server. When Spider installs an (expensive!) Email Server software on his Server, his machine will have the ability to create and maintain Email Accounts for his customers (the Website owners). Now, don't confuse this with "You've got Mail!" Spider is NOT creating an ISP company. He is not providing access to the Internet for his customers. He's just creating a Server where his customers can build their Websites. His customers will still log on to the Internet through their regular ISP. For example, one of Spider's customers might log on to the Internet through AOL. Then, once she is ON the Internet, the customer would log on to Spider's Web Server to make changes in her Website.

  When this customer first logs on to AOL, she will get any Email that was sent to her AOL account ("You've got Mail!"). That has nothing to do with Spider's Web Hosting Company. Spider's customer will continue to send Email to, and receive Email from her friends and relatives all over the world through her AOL Account, not Spider's Web Server. So why does Spider want to provide Email Services to his Website customers?

  Well, remember back in the last Chapter, when we talked about Email Forwarding? How a Website owner can "create" a whole bunch of Email Accounts that have the same Domain Name as their Website? I showed you how to create an "MX" or "MXE" Record that would have the IP Address of an Email Server in it. This is where Spider's Email Server IP Address would go. Spider's Web Server will handle the Forwarding of the customer's business-related email to her AOL Account. As I said then, you don't have to worry much about things like this; Tech Support people commonly handle them. However, it's good to know. :o)

  So, Spider loads his expensive Email Server software onto the same Server computer that he has loaded the Operating System and the Website creation software on. As we've talked about, in a larger company, there would be more than one Server to handle these different tasks. Spider, however, is a little guy on a budget.

- **Anti-Virus software:**
  The last thing that Spider needs is for his Web

Server to be destroyed by a computer Virus, so he loads the latest and greatest Anti-Virus software on it as well.

- **Backup software:**

  Even though Spider's Server has an extra "failsafe" Hard Drive that constantly keeps a copy of all the information on the Server, he still has to be sure to "Back Up" all the Server's information every day. It's possible that an electrical problem could damage both his Hard Drives at once. It's possible that a computer Virus could sneak past his Anti-Virus software and destroy the information on both Hard Drives. The information on those Hard Drives will be his customers' Websites, which they will have worked hard and long to create. If Spider's Server destroys them, he'll never hear the end of it! I once went to work for a small Hosting Company, where my predecessor had pretty much wrecked the Web Servers, and then quit. I handled screaming and crying phone calls from that company's customers for a solid month while working to recover all their Websites that had been lost or hopelessly scrambled!

  So, Spider needs to buy a unit called a Tape Backup Drive, and a good Backup software package. This Tape Drive is about the size of the CD Rom drive in your home computer. Instead of a CD, Spider will load a high-density backup tape into it. Then, every night, his Backup software will copy all of his customers' Websites off of the Server and onto that tape. Periodically, Spider will have to change the tape, and save the one he just made for at least a month. He'll end up with a bunch of backup tapes in a box in a safe location. At the end of the month, he will erase the oldest tape, and use it to perform the first backup of the following month.

  This gives Spider the ability to Restore all that information to his Server if there is a major failure. The Server "goes down", Spider fixes it, reloads all the software, and uses the most recent backup tape to restore all his customers' Websites to the machine. This also has an added benefit to the customer. If, for some reason, the customer makes a mistake, and ruins his or her own Website while working on it, that customer can call Spider and ask him to Restore the most recent copy of the Website to the Server.

- **Shopping Cart software**

  Since Spider plans on Hosting Business Websites for his customers, he will need Shopping Cart software on the Server. His Website customers are going to need to sell products on their sites and they can't do that without a system that allows them to take orders from their customers.

  Shopping Cart software is again something that deserves at least a Chapter of it's own, and this book isn't the place for it! You just need to be aware that the Web Hosting Company that you use for your business Website needs to have a good

Shopping Cart available to you. The Shopping Cart runs from the Web Server, so Spider needs to install that as well.

So, now Spider has the main software components he needs, loaded on his Server:

- o **Operating System**
- o **Website Creation Software**
- o **Email Server Software**
- o **Anti-Virus Software**
- o **Backup Software**
- o **Shopping Cart Software**

He's now ready for his next step:

Connecting to the Net

Spider can load software on his Server all day long, and it's not going to do him any good at all if that Server Computer is not connected to the Internet. His customers won't be able to access it to create their Websites and no one will be able to see any Websites created on it. It has to have an Internet Connection. It not only has to have an Internet Connection, it has to have a FAST Internet Connection. We're not talking about an AOL dial-up Account, or a Home "Broadband" Account here, kids. Depending on how many Websites Spider's customers create on this Web Server, there could be thousands and thousands of people accessing it at the same time. Can you say, "Gridlock"? :o)

Spider's Web Server has to be connected to a very high speed Internet "Pipe". The word "Pipe" is simply a Dweebish term that refers to the speed of a connection to the Internet. Why is that?

Think of Information flowing through an Internet Connection, as water flowing through a water pipe. If you have a small pipe, like a garden hose, for example, you get a relatively small amount of water that can flow through it at one time. If you replace that garden hose with a big two-foot-wide water main, you get a virtual gusher!

A Home Internet Connection, like AOL and the others, is a garden hose. That's not enough room for the amount of information that's going to flow to and from the Internet from Spider's Web Server. Spider needs to attach his Server Computer to a much higher-speed Internet connection; a bigger "Pipe". Where does he get it?

In his position, he has two basic options. He can:

- Lease a **T1 Line**
- Use a **Co-Location Facility**

Well, we're back in the domain of the Dweebish again, aren't we! Okay, let's de-mystify these two terms.

T1 Line:

A **T1 Line** is basically a telephone line. However, it's not your average telephone line. A **T1** is like a telephone line on steroids.

Most telephone lines, the lines we talk on every day, are simple copper wires. Our voices are sent over these lines using something called Analogue Technology. Using Analogue Technology, our voices are converted to little pulses of electricity at our end, and re-assembled into sound at the other end. That's what all those little electronic circuits in your phone do. They convert your voice into electrical (Analogue) pulses, and vice-versa.

Analogue Technology has been around for decades, and it works just fine for telephone conversations. It also works very well for low-speed Internet connections, like your Home Internet connection. In fact, that's what your "Modem" is for. Instead of converting a *voice* into electrical pulses, it converts "computer language" information from your computer into electrical pulses, so that your computer can "talk" over a phone line to other computers. At the other end of the connection, another modem converts the info sent from your computer, back into "computer language" so that the other computer can understand it.

So, Analogue Technology (a Telephone or a Modem) converts information into electrical pulses, sends it over a wire, and converts it back into information at the other end.

A **T1 Line** uses the same kind of phone line, just copper wires in most cases. However, the basic difference is that a **T1** uses **Digital Technology** instead of Analogue Technology.

A Digital Modem converts information into something called **Binary Code**. Now, we don't have to get into what Binary Code is. This is all confusing enough, and we have no need at this point to understand Binary Code. Let's just say that Binary Code is the language that computers speak. It's the Ultimate Dweebish Language.

Because the combination of Binary Code and a Digital Connection is *FAR* faster than regular old Analogue Technology, a **T1 Line** is *very* fast. It's a perfect example of the "bigger pipe" that we talked about.

T1 Lines are used for both Phone Systems, and Internet connections. When used for a phone system, a T1 can handle 24 separate phone conversations at the same time, from 24 different telephones.

When used for an Internet connection, a **T1** functions at a speed of 1.5 Megabits per second. What does that mean? Well, when you consider the fact that a normal Dial-up Internet connection in your home works at an average of 33 *Kilobits* per second, it turns out that a **T1 Line** is nearly **46 times faster** than a Dial-up Internet connection.

Now, our buddy Spider *needs* a very fast Internet connection, remember? He's going to Host Websites on his Server for his many new customers. Those customers will build their Websites on his Server, and a whole bunch of people from all over the world will surf to

those Websites and use them. All those Websites will live on Spider's Server. If Spider's Internet "Pipe" isn't big enough, those Websites will slow down, or will not work at all.

A **T1 Line** would nicely cover Spider's needs for a while. **But…**a **T1 Line** can cost thousands of dollars a *month*. At this point in his new business, Spider can't afford that installed in his office.

So, he looks into his other option:

Co-Location Facilities

There are places in most decent-sized cities called "Co-Location" facilities. They were created with people just like Spider in mind.

Called "Co-Lo's" for short, they are simply office-like areas that have a large number of very high speed Internet connections in them. Someone like Spider would physically move his Server computer there, and rent a "Co-Lo Space" by the month.
A Co-Lo space is only about as big as a small office desk, with a built-in cabinet that locks. The cabinet is just big enough for Spider's Server computer, his keyboard, mouse, and monitor (screen). Each Co-Lo space has it's own high speed Internet connection, usually equal to or faster than a **T1 Line**.

Spider, and dozens or even hundreds of other people, can rent a Co-Lo space in the same facility, move their Server into it, connect it to the Internet, lock it up, and leave it running. The Co-Lo facility will be protected by elaborate security; Spider will get an Access Badge when he signs his Rental Agreement.

Spider finds that the Co-Lo facility will only cost him about $400 a month, which is something he CAN afford at this time. So, that's his plan. He puts his Server in his car, drives it over to the Co-Lo, rents himself a space, and he's ready to start signing on customers.

Spider's Webb Hosting goes Online

The first site that will be created on Spider's new Web Server is his OWN Website. He needs to start advertising his services to people like you and me. So, he creates a very professional looking site that makes his company look much bigger than it really is. He offers reasonable pricing, technical support, a Shopping Cart, and some tips and pointers on creating Websites.

Along comes Jack Smith, looking to build a Website for his new business. He happens to find "Spider's Webb Hosting" on the Internet one day. He contacts Spider, and makes a deal to create his Website with Spider's company.

Spider collects his first month's payment from Jack, assigns an IP Address to some of the

space on his Server's Hard Drive, and sends Jack an Email that says:

* *

"Congratulations! Your New Website is Active! Your Website is: 123.45.67.89.

Your User name is: DJU28H9

Your Password is: LUMPY

* *

Look familiar to you? It should! We talked about this in the last Chapter. :o) So, from his home computer, Jack connects to the Server at Spider's Webb Hosting Company, and builds his Internet Site. Spider moves forward, gaining new customers, who build more Websites on his Server. After a few months, Spider can afford to buy a couple more Servers.

At that point, Spider moves the Email software off of his original Server, and onto one of his new Servers. That new Server becomes a "Dedicated" Email Server for Spider's company, because all it does is Email. That frees up space on the original Server, and also allows it to run faster. Spider uses the second new Server he bought as another Web Server for more new customers, since the original one is getting a bit full. And so it goes. Over time, Spider continues to build his Web Hosting Company, adding new Servers as the business grows. If he continues to do things right, and takes good care of his customers, Spider will one day be able to afford his own set of offices, with high-speed Internet connections. He'll move his machines out of the Co-Lo facility into his own facility. He'll gain more and more Hosting customers, and live happily ever after.

There you have it!

So, that's a look at a small Web Hosting Company from the inside out. It should help you to understand what Servers are, and how they work in relation to your business.

Why the heck do I need to Understand this stuff?

When you start your Internet business, you are going to need to create an Internet Store. That Internet Store will simply be a Website on a Server like Spider's. The more you understand about Servers, the more easily you can communicate with, and understand, the Tech people at the Web Hosting Company you choose.

I used the example of Spider's Webb Hosting to show you that appearances can be deceiving. Sometimes even the most professional Websites are simply fronts for very small businesses. If I was building a Website, and I found out that Spider's Web Hosting was one guy, with one Server that was running all that software at once, I would stay away from him like the Plague.

No offense meant to Spider, and the thousands of small Web Hosting Companies that are out there. They deserve a shot to start a business and make a living too. It's just that I have to be concerned with my business first, and worry about Spider last.

For that reason, when you look for a hosting company, you should ask a few questions of them before signing up, such as:

- "How long have you been in business?"

- "What kind of Internet connection do your Servers have?"

- "How many Servers *do* you have?"

- "What is the maximum number of Websites you allow on each Server?"

- "Do you include Backup?"

Those are some initial, basic questions. I don't need to give you the right answers here, since those answers will be different depending on the size and capability of their machines. Different answers are all right. The point is that if the Hosting Company you talk to answers these questions quickly and willingly, and doesn't try to side-step any of them, they are probably all right.

This Chapter started out as information on Servers, and led us into a discussion about Web Hosting Companies. That's perfect, because we're going to get further into Web Hosting in **Chapter Six**!

Chapter Six
Hosting Companies

Your Window to the World

This Chapter will take us further into Website Hosting Companies. We will *not* be talking about how to build a Website! Please remember that this book is about Understanding the Internet and *how it works*. We'll be talking about the different kinds of Hosting that is available, but we'll look at it from a "behind-the-scenes" point of view, the way the Hosting Companies see it.

We'll talk about:

- **What a good Website Hosting company is.**

- **What a Website actually is.**

- **Personal Websites.**

- **Direct and Indirect Selling.**

- **What makes an Ecommerce Website.**

- **Disk Size Restrictions.**

- **Bandwidth Restrictions**

- **Shopping Carts**

- **Payment Processing**

- **Levels of Site Hosting**

Sounds like fun, huh! Well, as always, it's not as bad as it looks. :o)

In the last Chapter, we took a look at Spider's Webb Hosting, and how one person can set themselves up to be a Web Hosting Company.

Web Hosting Companies are a dime a dozen. There are thousands of them out there. They all want your business, and will tell you whatever they think you want to hear in order to get it. Some of them are real, and some of them want you to think they're real, when in fact they are just resellers of other Hosting companies. There are lots of ways that one-man companies, and even companies that don't actually own Web Server at all can make it look like they are the best professional solution to your needs. **You need to be careful when choosing a Web Hosting Company.**

This Chapter will help you to learn about what these companies are and how they work, so

that you can make an informed choice. This is a choice that can seriously affect your business, so this knowledge is very important!

Now, Spider Webb, from the last Chapter, wasn't out to cheat anybody. He was just trying to start his own legitimate business. There's nothing wrong with that, as you know. However, most small Web Hosting Companies just don't have the money or the Human Resources to deal with all of the issues that their kind of business requires.

A good Web Hosting Company:

- Has to have the financial strength to purchase *quality* equipment. There are different levels of quality and performance in Computer systems, just like anything else.

- Has to be there to answer your Tech Support questions when YOU need them, even if it's the middle of the weekend or a Holiday. That means a serious investment in *people*. A good Web Hosting Company will have *live* Tech Support at least 12 hours a day, including reduced hours on weekends.

- Has to be *extremely* knowledgeable about what they do. Remember, these people are playing in the Land of the Dweebish. Nothing there is as it seems. There are dark, twisted corridors of mysterious technology in the Land of the Dweebish, and only the most knowledgeable technical people are able to navigate those corridors without becoming hopelessly lost! You don't want to put your business in the hands of a Hosting Company that only knows bits and pieces of the Dweebish Technology.

Now, don't get me wrong; I'm all for supporting small business. There are many small businesses on the Internet that are fantastic resources, and will work very well for you. Web Hosting is different, though. It's a highly *technical* process that must keep your business visible to the world twenty-four hours a day, seven days a week. Because it's so technical, there are a lot of things that can go wrong with it.

When *your* small business absolutely relies on *their* small business for its survival, you've got to decide if supporting a small Hosting Company is worth the risk of losing your shot at success on the Internet. Especially since, depending on your financial situation, this may be your *only* shot. If your site "goes down" (has technical problems that take it off the Internet), you lose sales. Believe me; I've *been there.* If it *stays* down for any serious length of time, you could lose your business altogether.

Let's start our behind-the-scenes look here:

What exactly IS a Website?

I'm sure we all know what happens when we go to a Website on the Internet. The first thing we see is that Website's "Home Page". That's the Site's *introduction*. It's what the Website owner wants us to see *first*. Then, there are "links" on that page that take us to other "pages" of information that the Website owner wants to show us. Anyone who has spent any time Browsing, or "surfing" the Internet is familiar with this idea. What does that

Website really consist of, though?

Behind the scenes, a Website is just a collection of computer files in an electronic file folder. That computer file folder sits on the Hard Drive of some Web Server somewhere.

If you were to walk into a Web Hosting Company, sit down at one of their Web Server Computers, and look directly at the Folders and Files on that computer, here's part of what you would see:

What does this mean? Let's break it down:

- **Local Disk (E:)** This is one of the Hard Drives on the Web Server Computer, just like you have a "C:" Drive on your Home Computer.

- **Websites** This is an electronic "Folder" on that **Local Disk (E:)** Hard Drive. It contains Websites owned by people like you and me.

- **127.43.52.124** This is one of the Folders that contain someone's Website. It could be yours, mine, or anyone else's.
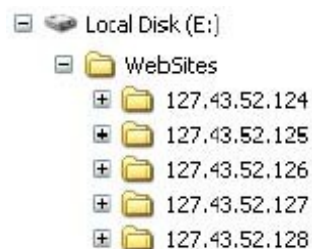
Notice that the Folders that contain people's Websites are named by **IP Address**. Remember when we talked about this? Each Website on the Internet has its OWN IP Address. The Website Hosting Company *assigns* those IP Addresses. On the Hosting Company's Web Servers (above image), each Website owned by someone like you or me is usually in a Folder that's named for the IP Address of the Website.

Notice also that in the Web Server Folders above, the IP Addresses are *consecutive.* The numbers are in a series. Remember when we talked about the fact that Website Hosting Companies *buy the rights* to certain "Blocks" of IP Addresses? That's how everyone can be sure that Hosting Companies aren't duplicating IP Addresses used by other companies. They can only use the ones they've bought the rights to. Since they've bought the rights to hundreds, or even thousands, of *consecutive* IP Addresses, the Hosting Company uses them one after the other in a numbered series on this Web Server.

The next Website that this Hosting Companies sells to someone will get the next IP Address in the series; **127.53.42.129**.

So, what's inside those numbered Folders? The individual computer Folders and Files that are the "Pages" of someone's Website.

Let's look at an example. If I were to look at the Folders and Files that make up a sample site on a Web Server, I would see this:

This is just a partial image of hundreds of files that make up a Company's Website.

On the top left, under "Folder list", you see the *Web Server Folder* that contains the Website. It's named for the IP Address for the site: **198**.**65.239.168**. The Folders underneath that one are offset to the right a bit. That offset means that those Folders are **Sub-Folders**; they are *inside* the Folder above them. Those individual Sub-Folders (**Members**, **Payment**, **Wwb**, **_Private**, etc.) contain different parts of the Website, organized by what they do in the Site.

On the right, under "Contents", you can see some of the individual Files that are in just ONE of the Folders on the left. These files are the actual "Pages" of the Website.

So, that is what a Website really is, technically. It's just a collection of Folders and Files sitting on a Web Server computer somewhere. When you buy Website Hosting from a company, they will assign you one of their IP Addresses, and create that main Folder and several of the sub-Folders on one of their Web Servers. You, or someone you hire, will create the actual Page files that go in those Folders. That's called "building" a Website.

Don't let this scare you! Most of those files are easily created by whatever Computer

Program you use to build your Website. It isn't nearly as complicated as it looks! The process of building a Website is a whole different ball game, though, and as I said, we won't be going into that here. The purpose of this Chapter is to help you understand the mechanics behind what a Website is, and how Website Hosting works behind the scenes. In order to understand this, we're going to move on and talk about the different kinds of Hosting packages that are generally available.

At the most basic level, for the purpose of our talk here, there are two basic kinds of Web Hosting:

- Personal Website Hosting

- Ecommerce Website Hosting

If you're starting an Internet Business where you will sell products, Ecommerce Site Web Hosting is what you need. First, though, we need to talk about Personal Website Hosting, so that we can understand the differences.

Personal Website Hosting

Personal Website Hosting is the kind of Hosting you can get for FREE along with your ISP (Internet Service Provider) Account. I mentioned the fact that when you sign up for an AOL Account, you might get *free* Website Hosting for your own personal Site.

Free Website Hosting is very limited. It will have tight size restrictions (we'll talk more about that), and you will not generally be allowed to use it for business purposes.

You can also *pay* for a Personal Website, if you're serious about wanting to create a *larger*, more flexible Site that is *informational ONLY*, and does not directly sell anything.

For example, one of my Sons is a very serious Gamer. He plays computer games on the Internet against other people all over the world. He's part of a certain group of people who always play together. They have their own Website, which my Son created and maintains. It falls under the category of a Personal Website, because nothing is *sold* on that site. Here's what the Site does:

- Lists the names and Bio's (personal information) about the different Players in the group.

- Contains information on how to use the "Game Server" that they play on.

- Lists news and upcoming events (tournaments, etc.).

- Contains game playing tips and tricks.

This site does NOT sell anything. It gives people free information, which is why it's in the Personal Website category. There are millions of Personal Websites on the Internet. From Dog Grooming Tips to Family reunion sites to the latest Nose Hair Clipping Methods. There are other kinds of Sites that I place in this category as well, such as free Government Information Sites, Corporate Informational Sites, etc. A Government or Corporate Informational Site isn't exactly personal, I know. However, any Website that doesn't directly sell something, in my mind, gets lumped into the Personal Website category, just so we don't confuse the issue here with dozens of other categories. :o)

So, you can use a FREE Personal Website that may come with your ISP (Internet Service Provider, like AOL) Account, or you can PAY for a larger, more involved Personal Website.

You just can't **directly sell** anything on a Personal Website.

What do I mean by **directly sell**? Well, there is **indirect selling**, and there is **direct selling**.

- **Indirect Selling**

   Let's say I created a Personal Website that talked about my Cousin's recipes for Five-Alarm Chili. I list a couple of Three-Alarm Recipes there, to get you interested. Then I tell you that for the really GOOD stuff, you can mail me a check for $5, and I will send you the Recipes for the Five-Alarm Gut-Busters. I put a Mailing Address on the site, and I sit back and wait for your checks to roll in.

   That's **indirect selling**. The Site is getting you interested in the product, but you have to go through an outside process (mailing me a check) in order to complete the sale.

   If I try to do that on a FREE Personal Website, and my ISP finds out about it, they

may shut me down. It's up to them. I'm not supposed to be selling in *any way* on most FREE Personal Websites.

However, if I **pay** for a Personal Website from a Web Hosting Company, I **can** do that. I can do pretty much anything I want, within the law, with a Personal Website that I pay for. So I can use it for *indirect sales* if I want to.

The reason that the providers of FREE Websites don't want you selling things on them (directly *or* indirectly) has to do with the number of people who visit the Site. Web Hosting Companies reason that someone who creates a Site that's built to **sell** something will be marketing that site with everything they've got. Trying to attract as many visitors as possible. That means that many more people will be visiting that Site. The Hosting Company's **Web Server will have to work harder** to accommodate all that Traffic (customers), and the Hosting Company wants to be *paid* for that. We'll be talking about that in more detail in a few minutes.

However, if you want to pay for a Personal Site that sells something indirectly, that's OK with them. They're making money from you for all that customer traffic that their Web Server has to handle. So, in general, no selling at all on a FREE Personal Website. Indirect selling is okay on a **paid** Personal Website.

- **Direct Selling**

    Direct Selling means that the visitors to your Website can actually complete the transaction *on the Site itself*. They can whip out a Credit Card, OK an Electronic Check, use a payment service like PayPal, etc., right then and there. They go to your Site, see something they like, and they complete the sale.

    You **can't** have **Direct Selling** on *any kind* of Personal Website. Personal Websites, by definition, are Informational only. While *Indirect* Selling will work, Direct Selling will not. Personal Websites are not set up for Direct Selling.

Ecommerce Website Hosting

So, what kind of Website *is* set up for Direct Selling? You guessed it! An Ecommerce Website!

An Ecommerce Website is really just a *paid* **Personal Website** with a couple of *added features:*

- **A Shopping Cart**

- **Payment Processing**

    I'm sure we're all familiar with the concept of a

Shopping Cart in our everyday lives, right? Big metal cart with four wheels. One of the wheels is always either stuck or square. Some of them come with screaming kids attached, depending on your personal situation. You squeak, thump and scream your way through the aisles of your favorite Supermarket, loading up on milk, hamburger and Cocoa Puffs. Then you stand in line at the Checkout Counter for ten minutes behind the lady who's trying to write a check, but can't find her ID.

Well, the concept is the same on an Ecommerce Site, except for the squeaking, thumping and screaming. If you've ever bought anything online before, you've seen an online **Shopping Cart**. It's the part of the Website where you:

- Choose the Product you want

- Choose the Quantity you want to buy

- Enter your Name and Address for Shipping

- Enter your Credit Card number or other form of payment

- Complete the sale

I've shown you above how a Personal Website is just a collection of Folders and Files on a Web Server that sits in a room at a Hosting Company. A **Shopping Cart** is just another collection of computer files.

In order for the Web Hosting Company to turn a Personal Website into an Ecommerce Website, all they have to do is *add* the **Shopping Cart** files to it. From the Hosting Company's point of view, it's pretty much as simple as throwing a switch.

On an Ecommerce Website, the **Shopping Cart** is not just a place to toss your Cookies until you get to the Checkout Stand. The good ones also calculate Sales Tax based on where your customer lives, calculate the Shipping the customer needs to pay (based on their Zip Code), and more.

Like anything else, there are good Shopping Carts and bad Shopping Carts. A Shopping Cart, after all, is just another computer program written by some person, somewhere. It's only as good as the skill and creativity of the person who wrote the computer program.

The good ones are easy to use. The poorly designed ones usually are not. I've had Sites where the Shopping Cart was something I almost never had to think about, and I've had Sites where the Shopping Cart was a constant nightmare that I had to futz around with constantly just to stay in business.

In this book, the important thing to understand is what the Shopping Cart is *for*, and that a good Hosting Company will include an easy-to-use one with your Ecommerce Website.

What you need to take away from this talk is that all Websites start out as the same basic collection of Folders and Files that make up a Personal Website. In order to turn a Personal

Website into an Ecommerce Website, all your Hosting Company has to do is click a couple of mouse clicks at their end, and *add* the **Shopping Cart** Folders and Files to your Site. Presto! It's now an Ecommerce Site!

Some Web Hosting Companies include the Shopping Cart in the Ecommerce Site Packages they offer, and some have you choose your Site Package *first,* then choose the particular Shopping Cart you want *later,* from a short list of available Carts*.*

I personally prefer the companies who offer the Site and just one particular Shopping Cart together as a package. That tells me that they're very familiar with how their Websites and Shopping Cart products play together, and have chosen a Shopping Cart that works well. It also tells me that their Tech Support people will be *very familiar* with that one Shopping Cart, in case I need help with it!

Once the Hosting Company activates a Shopping Cart on your Website, that Website now has all the Informational capability of a Personal Site, and the Ecommerce capability to *directly sell* products.

However, even though you have the Site and the Shopping Cart, you still cannot actually **collect money** from your Customers until you have a **Payment Processing Gateway**. Another, more common name for a Payment Processing Gateway is a **Merchant Account**.

We're talking about Web Hosting here. But, if you want a better understanding of **Payment Processing (Merchant Accounts)**, there's a whole Chapter on them in my FREE EBook, which you can download from our site at www.WorldwideBrands.com. :o)

Here's how **Payment Processing** fits in to your Site:

1. Your customer looks at the *Informational Pages* of your Website, and finds a product they like.

2. The customer places the product in your Site's Shopping Cart, by selecting it for purchase.

3. Your Site's Shopping Cart tells your customer to enter all the personal and credit card information that the Shopping Cart needs to complete the sale.

4. Your Shopping Cart talks to your **Payment Processing (Merchant Account)** Gateway, and transfers money from your customer's credit card to your bank account.

Some hosting companies *include* Payment Processing with their Ecommerce Sites, and some make you go out and get your own. Either way, it's not hard to deal with.

Stocking the Shelves

Now that this Website is set up for Ecommerce, it needs products on the shelves.

Every **Shopping Cart** is a little different. When you're ready to load your Shopping Cart with images and descriptions of the products you're selling, the Shopping Cart software itself will have step-by-step help to show you how to do it. You'll get access to a "control panel", like the one I showed you for Domain Name Management. That control panel will allow you to place products for sale on your Ecommerce Site.

So, a Web Hosting Company:

- Has racks of Web Server Computers with high-speed connections to the Internet, in a building somewhere out there in the world.

- Allows you to "rent space" on the Hard Drive of one of their Web Servers.

- Turns that rented Hard Drive Space into an "empty" Website that has a Shopping Cart and a way to connect to Payment Processing.

- Gives you access to that Site so that you can add your Informational Pages (Welcome to Joe's Screwdriver Store!) to the Site.

- Gives you access to a Control Panel so that you can add products to your site, set prices, etc.

Time to Pay the Piper

Ecommerce Websites, of course, are not free. If ya wanna play, ya gotta pay, right? That's a given fact the world over, no matter what you're doing. :o)

How do the Web Hosting Companies determine how much they'll charge you for your Ecommerce Website? Basically, it has to do with three things:

1. Hard Disk Space:

I've mentioned before that a computer's Hard Drive (commonly called a **Hard Disk**) is like a File Cabinet that you might have in your home or office. You have documents you want to save, like your Homeowner's Insurance Policy, last month's paid bills, little Timmy's school Report Cards, etc. You put all those documents inside those tan colored File Folders you get at the office supply store. You label each folder, and stuff it into your File Cabinet.

After you do that long enough, that File Cabinet starts to fill up. You'll get to a point when your File Cabinet is full. You just can't stuff any more Folders into it. You don't want to throw away any of the Folders and Files you already have in there, so you go out and get *another* File Cabinet, and start filling *that* one up as well.

That's exactly what happens with the Hard Drives on a Hosting Company's Web Server.

They keep on selling Websites to more and more new customers. Those Websites are collections of Folders and Files, stored on the Hosting Company's Web Servers.

The customers create their Websites, which means they are creating *more and more new* Folders and Files on that Web Server's Hard Drives. Just like filling up a File Cabinet.

So, think of a Web Server as a *very expensive* File Cabinet. The Website Hosting Company that owns that Web Server has to *charge money* for space in that "File Cabinet", because it costs them so much money to buy, and costs them money to maintain.

When you buy Website Hosting, that's one of the things your Website Hosting Fees pay for. The space that your Website takes up in that Web Server's Hard Drives.

When you build your Website, you're going to be creating Computer Folders and Files on the Hosting Company's Web Server. The more "pages" you create for your site, the more space your Site takes up on the Web Server's Hard Drive. The text on your pages takes up very little space. Images, however, like your Title Banner and any other pictures you place on the Site, take up much more Hard Drive space.

Another way to think of a Web Server's Hard Drive is like a Restaurant. For example, the owner of Jasper's House of Chicken-Fried Possum has a certain amount of space in his restaurant. The more people he can cram in there at any one time, the more money he's making. This month, Jasper has a promotion going that he hopes will increase business. Adults pay for their meals, but kids eat for free.

When Jasper's restaurant is full of families with just one or two kids each, Jasper makes money. However, Jasper's worst nightmare is seeing a School Bus pull up out front, and unload four adults and 50 kids who are on a field trip. All those kids are going to take up space that could have been used for paying adults, and they're all going to eat for free.

Think of yourself as the paying adult, and your Website Pages as the kids. You're paying your Hosting Company a set amount of money for your Site. However, if you create a huge number of pages for that Site, you are taking up extra Hard Drive space that could have been used by the Web Hosting Company for *other* paying Sites.

So, one of the ways that Hosting Companies use to decide how much to charge you is the Hard Drive space your site will take up.

Now, Website Hosting Companies know that some people create small Websites, and some people create large Websites. Other people create *very large* Websites. One Web Server computer might be able to hold 250 *small* Websites or maybe 100 *medium*-sized Websites or just 20 or 30 *big* Websites. Then there are the really big, high-traffic Websites (like *our* Website!) that have to have their own Web Server all to themselves!

In order to control the number of Folders and Files (Web Pages) that people stuff into

their Web Servers, the Hosting Companies don't wait until after your Site is created, and then charge you for what you've done. They give you a Disk Space limit that you can't go over, and they charge for that Disk Space, whether you use it all or not. If you do end up creating so many Web Pages that you go *over* that Disk Space limit, they will "Upgrade" your Hosting Plan to a larger Disk Space, and charge you more money for it. They may also move your whole Website to a different Web Server that has more Disk Space available. (Yes, they can do that. Annoying as they are, the Dweebish are still pretty talented!)

Very few people ever go over the basic Disk Space limits on most Web Servers, so you shouldn't have to worry much about that. It is, however, very important to be aware of it and what it means.

2. Bandwidth Restrictions:

A Bandwidth Restriction is another kind of size restriction. Remember a while back, when we talked about "Pipes"? A "Pipe" is Dweebish for an Internet connection, just a phone line or other electronic connection, either from your Home Computer *to* the Internet, or *between* Internet Server Computers *on* the Internet. The size of the Pipe determines how fast the connection is.

The size of a Pipe is measured in something called "**Bandwidth**".

(*Dweebish Language Translation:*)

Bandwidth: "The amount of Information that can flow through a "Pipe" (Internet Connection) at one time".

Think of it this way:

Here in Orlando, Florida, we have an Expressway called Interstate 4. It travels right through the City of Orlando, from the Southwest to the Northeast.

Orlando is a really big Tourist Town. We have Disney World here. We have Universal Studios. We have hundreds of other attractions. People come here from all over the world on their vacations. I've heard it said that the population of Orlando *doubles* if you count the Tourists who are here at any given time.

Now, we *love* tourists here. Nothing makes us happier than sharing the Sun and Fun of Orlando with people from all over the world. It's really amazing to drive around downtown and see people from every place you can imagine, having a great time in our wonderful City.

But, as you can also imagine, when the population doubles, so does the traffic. People come from all over the globe, and rent cars here. Being unfamiliar with Orlando, they're not

really sure where they're going, so they drive slower. Many of them have never even driven on the "right" side of the road before!

The point is that the Interstate 4 Expressway, or "I-4" (Eye-Four) as we call it here, just isn't wide enough to handle all that traffic. It actually widens out to eight lanes in places (four in each direction). Still, at times of peak traffic (rush hours, Theme Park opening and closing times, etc.), you can very easily end up sitting in stop-and-go traffic for long periods of time.

In order to move a growing number of people through the City, Orlando needs to add more *Bandwidth* to I-4, by widening it. This will have the effect of turning I-4 into a *Higher Bandwidth Pipe*, through which more cars can flow faster.

The example of Street Traffic is a very good way to look at the Internet. On the Internet, "**Traffic**" is the term used to describe how many people are using the Internet at any given time.

Think of the Internet as a Road System. The bigger, faster Pipes that connect major Internet Servers to each other are the Expressways. In comparison, the small Pipe that connects your Home Computer to the Internet is a dirt road, with a big rut and many weeds. (Sorry, but it's true!)

In between those two extremes are many different sizes of Pipes. Four lane highways, two lane State Roads, residential streets, etc.

Let's imagine for a minute that the Web Hosting Company you choose for your Website is a *Town*, called Sitesville. Sitesville is conveniently located on a fast, four-lane highway that runs right through the center of town. Now let's imagine that *each Web Server computer* owned by that Hosting Company is actually *a housing development* in the Town of Sitesville.

The Web Server Computer that contains *your* Website is a housing development called Happytime Estates. There are 237 Houses in Happytime Estates. Each one of them is a Website, like yours.

Out on a highway miles away from Sitesville, you have paid for a Billboard at the side of the road. In huge letters, it says, **"Visit Jane's Website, for the best deals on Stuff!"** In smaller letters, it gives directions to your Website: "Get off at the Sitesville Exit, turn left at Happytime Estates, then take the third right and go to the end of the street".

Now, millions of people are whizzing along the Information Superhighway (the Internet). Some of them notice your Billboard, and decide to visit your Site.

They exit the Superhighway at Sitesville, which puts them on the smaller four-lane highway that runs through town. They have to slow down, because it's a smaller four-lane road. Then they turn left and enter Happytime Estates. That puts them on an even smaller residential road. It's pretty narrow, so traffic slows again. To get to your Site, they take the third right and head toward the end of the street. At this point, they are on a very narrow

residential street. There's not that much traffic, though, so they don't have to slow down too much more. They arrive at your site, and buy all kinds of things from you.

A while later, you are earning good money and you decide to spend some of it on more advertising. So, you rent many more Billboards along the Information Superhighway. As a result, many more visitors flock to your Site.

However, you begin to see a problem. The more visitors that are stopping by, the more clogged up your street gets. People have to slow *way* down in order to avoid collisions. Sometimes it gets so crowded that traffic stops completely before they get to your site, and they decide to turn around and go somewhere else instead. The other residents on your street are complaining, because other traffic that's on its way to *their* houses (Websites) can't get through.

Eventually, you get a letter from Happytime Estates, telling you that you are causing too much traffic on that residential street. They want you to move off of that small street. They have a deal for you on a place located in their neighboring housing development, Valley Ridge. It costs more, but the houses are bigger, there are fewer of them and the streets are wider. Less possibility of a traffic jam.

So, in order to stay in business, you pay for the more expensive place in Valley Ridge. Your visitors can get to you much more easily, and everybody's happy. :o)

This is what happens with Website Hosting Companies. They watch the "bandwidth" that your site is consuming. That means they are keeping an eye on the customer traffic that comes into all the Websites on any Web Server. If *your* site starts drawing too much traffic, they call that *Consuming too much Bandwidth.* The more Bandwidth *you* consume on that Web Server, the less there is for all the other Sites on the same Server. The Web Server gets overloaded with Traffic.

So, they tell you that you must Upgrade your Hosting Plan, to allow for more Bandwidth to your Site. This will probably mean that they will move your Site to a less crowded Web Server. Fewer Sites on that less crowded Server means that there's more Bandwidth for those Sites to share. No traffic jams.

The process of moving your Site is something that they do *for* you. It might cause some minor inconvenience for a couple of days, but the Hosting Company will help out with that.

So, when you first set up your Website Hosting, the Hosting Company will go over a number of Bandwidth plans, from smaller to larger. It's up to you to give them an idea of how much customer traffic you expect.

When first starting out, it will take time to bring in an increasing amount of customer traffic. You don't want to pay a lot for additional Bandwidth that you don't need yet. So, it's okay to start small, and Upgrade your Hosting as you need it.

All right, we've talked about Disk Space Restrictions, and Bandwidth Restrictions. These are

two things that your Hosting Company Sales Rep will talk over with you when you buy Website Hosting Space. The Rep will help you decide what combination is right for you, so don't sweat it!

Next, we'll talk about:

3. Product Number Restrictions:

This one's easy.

   Some Hosting Companies don't worry about Bandwidth Restrictions. Instead, they simply charge you by Disk Space, and the number of products you plan on putting up for sale on your Site.

   These people have complicated formulas all worked out that tell them how much Bandwidth is usually consumed *per product for sale* on a Website. That makes things very simple for you. They'll have a Rate Card that tells you how much your Site will cost depending on how many products you plan to sell, and that's it.

   For example, if you plan on selling from 0 to 50 products, you pay one amount. If you plan on selling from 51 to 100 products, it's a higher amount. And so on. The more expensive the Hosting Plan you buy, the more Disk Space they'll give you for your Site.

   There's not much more to say about Sites sold by Number of Products, except to explain **Product Variations**. This is easy to understand. Let's say you're selling T-Shirts. For every T-Shirt you sell, you have four sizes: Small, Medium, Large, and Extra Large. Even though each T-Shirt may come in four sizes, it still counts as one product. Any Hosting Company that tells you that one T-Shirt that comes in four sizes actually counts as four products when calculating your Site Cost under this method is trying to rip you off. Okay, you get the idea, right? :o)

The three basic restrictions you'll see when purchasing Ecommerce Hosting are:

- **Disk Space**
- **Bandwidth**
- **Number of Products you can sell**

   You'll almost never see all three of those restrictions together. What you'll usually see is some combination of two of those three.

Would you like Email with that?

   Something else that's a common part of a Website Hosting Plan are *Email Accounts.*

   We'll be talking about Email in the next Chapter. For now, here's what we need to know. When you own an Ecommerce Website, like LeftHandedPants.com, for example, you want to

have Email Addresses that have the same Domain Name. For example, I would want to have Email addresses like Chris@LeftHandedPants.com and Sales@LeftHandedPants.com, and so on.

Earlier, we talked about how you can do that with your Domain Name provider, by using *Email Forwarding*.

Well, you can also do it through your Website; if you buy your Domain Name from your Hosting Company at the same time you buy your Website Hosting. (Don't worry about this concept for now...we'll go over it in the next Chapter).

The point is that most good Website Hosting Companies offer you Email Accounts along with your Hosting Plan, so that you can create those "personalized Email addresses" for your business. Sometimes the deals are good, sometimes they're not. Again, Email Accounts are not to be confused with Email Addresses, or Email Forwarding! They are different things, and we'll find out why in the next Chapter.

Let's Compare...

I've said over and over again that this book isn't the place to talk about the details of buying and building your Website. However, we can't really finish talking about Bandwidth and Disk Space without comparing some Ecommerce Hosting Plans, so let's do that:

These examples are from a large, well-known Web Hosting Company, and show three levels of Ecommerce Website Hosting sorted by cost:

E-Stand: 29.95/month	**E-Store:** 59.95/month	**E-Market:** 99.95/month
Sell up to **15** products	Sell up to **100** products	Sell **Unlimited Products**
250 MB of Disk Space	**300** MB of Disk Space	**350** MB of Disk Space
20 Email Addresses	**30** Email Addresses	**40** Email Addresses
Payment Processing **Available**	Payment Processing **Available**	Payment Processing **Included**

You can see the price differences in these three Ecommerce Hosting Plans. In each column, I've highlighted in **bold** the *Hosting Company's reasons* for these price differences.

The first thing I notice about these packages is that this company has decided not to even bring up the Bandwidth issue. They've figured out how much Bandwidth you should need to sell a certain number of products, and they've priced their packages by Number of Products instead of Bandwidth.

In fact, when you get right down to it, the only **real difference** between these packages is the Number of Products you can sell.

Yes, I know there are other things that *seem* different. Let's look at those.

Disk Space:

The **E-Stand** offers **250 MB** (megabytes) of Drive Space. The **E-Store** and the **E-Market** packages offer **300**, and **350** respectively. The truth is that there is not all that much difference these days between **250 MB** and **350 MB**. Those numbers are really designed to make it *look* like you're getting something better, when it probably won't matter all that much to you. No matter which plan you choose, you probably won't even fill up the original **250 MB** to begin with.

However, there are two ways that someone could fill up those 250 Megs, and beyond:

- Create a very talkative, cluttered site with way too much information. Selling is a balance between what you say, and what you don't say. Something I learned a long time ago, when I worked in the Newspaper Advertising business, is that empty space is just as important as filled space. You don't want to crowd your site with ten pages of details describing one broom that you're selling. You'll eventually fill up your Disk Space if you do that with all your products. Also, your customers will fall asleep while they're trying to read through all that nonsense to get to the product itself. Not a good thing!

- Take the "**unlimited**" nature of the E-Market package too literally, and really put a huge amount of products up there. You're going to find that when Web Hosting companies use the word "unlimited", **they don't really mean it.** They just mean that they don't think you'll ever get around to selling enough products so that you crowd your so-called "unlimited" space on their Web Server. There IS a limit, and they will let you know immediately if you ever reach it!

So, those **Disk Space** numbers are largely window-dressing in these packages.

Email Addresses:

Again, this is more window-dressing. On my own Product Sales Sites, I've never needed more than 20 Email Addresses. In fact, I've never needed more than 5 or 6 Email Addresses for an Ecommerce Site. When they tell you that you'll get **30 Email Addresses**, or even **40** if you go with the bigger accounts, they know you'll never use them. It just makes the bigger packages look good.

Payment Processing:

Notice that on the first two packages, the **E-Stand** and the **E-Store**, they tell you that Payment Processing is *available*. That means that it's **not included!** However, they're hoping that you won't realize that, and think that it *does* come with the Package.

In the **E-Market** Package, Payment Processing *is included*, but **be careful!** There are good and bad kinds of Payment Processing and many things you get FREE or INCLUDED aren't very good.

Again, you can read more about Merchant Accounts (Payment Processing) in my FREE EBook, at www.WorldwideBrands.com.

So, the point that I've been trying to get around to is this: The only important difference between these Hosting Packages is the **Number of Products** you can sell. That all goes back to how much Bandwidth higher Numbers of Products use up on a Hosting Company's Web Servers. That's the *real reason* behind the price differences.

I said near the beginning of this Chapter that there are good Hosting Companies and bad ones. Nothing against small business, certainly, but the bigger, more established Hosting Companies are your better bet. They have the equipment, the people and the know-how to keep your site going 24/7, which is what you need.

You're going to come up against a *lot* of offers from small Hosting Companies that are going to look very good. Try to resist! You need to check these companies out thoroughly to be sure they are big enough to be truly effective. A good indicator is their Phone Support. If they look like a large, legit company, and you get a live body almost every time you call there, they probably are what they seem to be.

Small Hosting Companies will give you phone numbers for sales and tech support, but you will almost always end up leaving a message and waiting for a call back.

This is more info for a book on actually buying and building a Website, but I'll say it here anyway: When choosing a Hosting Company, try calling both the Sales phone AND the Tech Support phone a couple of times, once during a normal business day, and once during their "weekend hours". If a live person actually answers both departments at both times, you're probably dealing with a company that's big enough to suit your needs.

For *our* recommendations on Website Hosting Companies, please see our Resource Center, at www.WorldwideBrands.com.

In conclusion:

All right, we've gone over a good deal of information about what Websites actually are (Folders and Files), and how Website companies work.

It's important to realize that creating an Ecommerce Site is not as complicated as it seems to be. The information in this Chapter is very important for you to understand,

because knowing *why things work the way they do* is just as important as knowing how to do them. However, even though the info here may make the world of Web Hosting seem complex, it really isn't. Not to you and me, the "End Users" of these Ecommerce Sites.

   Most good Hosting Companies today make creating a Website as easy as "point and click" with your computer mouse. The use of "Templates", which are ready-made Website pages that you can choose from and customize, makes creating a Website a virtual breeze. Internet Malls make things even easier.

   It's pretty obvious why you need to know this stuff, so we'll skip the "Why the heck do I need to Understand this stuff?" part, and simply review this Chapter.

A Website Hosting Company:

Is a building somewhere on the planet that houses a bunch of Web Server computers.

- Has *very high speed* Pipes (connections) between their Web Servers and the Internet.

- Will, for a fee, allow you to place the Folders and Files that make up your Website, on their Web Servers.

- Will add Shopping Cart software to your Website for you, or allow you to add your own.

- Will provide you with an online Control Panel so that you can reach your Shopping cart, and place products on your site for sale.

- Charges you for your Site using some combination of Disk Space, Bandwidth, and/or Number of Products figures.

- Will provide you with Email Addresses.

- Monitors your Site for Traffic and Disk Space usage. If your site gets too big or too crowded, they will increase your Disk Space for a fee, or move you to a less crowded Web Server for a fee, or both.

- Need to be a large, experienced company in order to cover your needs 24 hours a day, seven days a week!

   Well, I'm all talked out about Web Hosting Companies, as far as understanding what they are is concerned. Time to go get a "Sammitch and a Soda", and then we'll hit the next Chapter, and dig into the Wonderful World of Email!

Chapter Seven
Email

The New Postal System

There's a new Mail Carrier in town, Folks! This Mail Carrier works 24 hours a day, 7 days a week. No breaks. This Mail Carrier doesn't have to worry about bad weather or dog bites. Your Mail is delivered within seconds; to just about anywhere you are, anytime. Anyplace you can get access to the Internet; you can pick up your Mail. Okay, so it's not all that new. :o)

Email *has* been around for some time now. For those of us in the Computer Systems business, it seems like forever, but it's really only been a decade or so since Email came into common public use.

In those early days, it was clunky, and hit-and-miss. Back then, when you Emailed someone, you had to hope that the person on the other end was using the same kind of Email Software you were. Otherwise, they could end up with a page full of Alphabet Soup that looked like a scrambled code transmission from Spy Headquarters.

You couldn't send "Attachments" with your Email either. You know, pictures of the kids, documents, etc. Email was "text only" in those days. You could type some words into your Email program, and send those words to someone else, but that was it.

Email has come a long way since then. :o)

In this Chapter, we're going to talk about:

- **Email Addressing**

- **Email Servers**

- **Email Clients**

- **Address Management**

- **Autoresponders**

Sounds like a party on a page, doesn't it! Oh, come on…you're on Chapter Seven already. You'll make it. :o)

And now, a Word from our Sponsors…

No, don't cringe! This EBook doesn't have any commercials built in! Before we really get started, though, I just want to help you to understand a couple of terms that you may come across when dealing with Email in your business.

Back in the Day, as I said, Email was just text. You typed some words, you sent your Email, and the person on the other end got the Email and read the words. That was really all you could do with Email at first. That's loosely referred to as a simple ASCII (text only) Email. Want to amaze and delight your friends? Here's what ASCII stands for:

(Dweebish Language Translation:)

ASCII: "**A**merican **S**tandard **C**ode for **I**nformation **I**nterchange. Simplest definition: A code that converts the Alphabet (A, B, C, D, E, F, G...) to and from Computer Language." Today, as I'm sure you know, you can do much more with Email. You can:

- **Attach documents and pictures to an Email**

- **You can send and receive HTML Emails** (Emails that look like Web Pages)

- **Emails can actually start Programs on your computer.** (If you're not careful, that Program could be a Virus!)

So, what's responsible for allowing us to do all these wonderful things with Email? Well, without getting into earlier Dweebish Terms like UUEncode and BinHex (no, you don't really want to know what they mean!), we can thank a newer development called MIME for most of this.

(Dweebish Language Translation:)

MIME: "**M**ulti-purpose **I**nternet **M**ail **E**xtensions. A standard developed to allow Emails to contain more than simply ASCII text."

When your home computer gets an Email, it will contain behind-the-scenes information that tells your computer whether the Email has something special contained in it, like an attached file, or a little animation of Spunky the Wonder Bear doing the Birthday Dance.

This behind-the-scenes info (that you generally will not see) simply tells your computer how to open that special package and show it to you.

It won't come up in everyday conversation, but you will come across the term "MIME" somewhere along the way, and it helps to know what it means and does. :o)

Moving right along...

Email Addressing

In Chapter Three, we talked about Uncle Joe Smithers, and sending letters to his mailbox. In Chapter Four, we talked about Domain Names. Email Addressing is just a combination of those two things.

Every person on the Internet who uses Email has an Email Address. No two of them are the same! They can't be, just like you can't have two Street Addresses that are exactly the same. In fact, Street Addresses are a good example to start with.

With Street Addresses:

1. More than one person can have the same Name, right? There are a lot of Mary Smiths out there, for example. There aren't so many Elmont Hueppenpheffers in the world, but it's at least possible that more than one person could have that name, however unlikely!

2. More than one person can have the same House number. There are probably tens of thousands of people who live in House Number 15, for example.

3. More than one person can have the same Street Name in their home address as well. Main Street. South Avenue. Elm Street. How many cities and towns in the U.S. probably have streets with those names? Lots!

4. More than one person can have the same City in their home address. Lots of people live in Chicago!

5. More than one person, certainly, can live in the same State. We don't even have to mention that, do we?

6. Finally, more than one person can have the same Zip Code as well. That's a no-brainer too.

So, with all those people able to have all those same names and numbers in their home addresses, how is it that there's really only one of each of every Street address? How can that address be unique? It's because there are controls in place, even though we never think about them.

- Cities and Towns control the House Numbering in their areas. If you drive down a street called Leadbottom Circle, you're only going to find one house with the number 15, right? That's because the City Planners make sure of that.

- Cities and Towns control the naming of their Streets. They don't generally allow more than one street to have exactly the same name. Oh, they may get close. Elm Street and Elm Avenue could exist in the same Town, for example. However, they are still different from each other.

- There can be more than one Town or City with the same name. They will, however, generally, be in different states or Provinces.

- Even if more than one town or city in the same State or Province has the same name, it will probably be in a different Postal Code.

The *combination* of all these controls ensures that just about any physical Street Address is different in some way from any other one.

Well, guess what? The same thing is true on the Internet. There are controls in place. As we all know, an email address is much simpler than a Street Address. Street Addresses use at least six different "identifiers". Name, House Number, Street, City, State, Zip Code. There are more if needed: Apartment Number, Suite Number, "Zip + 4", etc.

Email Addresses only use TWO identifiers, yet they are still all unique. How is that possible? Well, let's look at what an Email Address is. As I said, it only has two identifiers, or parts:

- **User Name**

- **Domain Name**

User Name   **Domain Name**

Joe@WorldwideBrands.com

The two parts of an Email Address are its **User Name**, and it's **Domain Name**. The User Name and Domain Name are *always* separated by the @ symbol.

As you can see, the User Name is the *first part* of the Email Address, and always comes *before* the "@" symbol. For example, let's look at this Email Address, Joe@worldwidebrands.com". (For all you pranksters out there, don't bother...it's not a working address!)

In this case, the User Name is "Joe".

Now, there are probably thousands of Email Addresses on the Internet that have that exact same User Name. It's very common, and that's OK. The User Name does *not* have to be different from any other! You can have as many Email User Accounts Named "Joe" as you want on the Internet.

The Domain Name is the *second part* of the Email Address. The **Domain Name** is the **control** for Email Addresses. **Each Domain Name can only have ONE of each Email User Name**. That's where the uniqueness of each Email Address comes from.

In our example, "Joe@WorldwideBrands.com", there can only be **one** User named Joe at the Domain Name "WorldwideBrands.com". If there were two or three "Joes" *working* at WorldwideBrands.com, you would see a difference in the User Names. For example, if Joe Smith, Joe Jones, and Joe Doe all worked at WorldwideBrands.com, they would all need Email Addresses at that Domain Name. The User Name part of those Addresses would have to be different, though, because they are all on the same Domain Name.

For example:

- If Joe Smith started working there first, he would probably be Joe@WorldwideBrands.com

- If Joe Jones came on board next, he would have to settle for something like "JoeJ@WorldwideBrands.com". That Email Address uses his first name, and the first

letter of his last name.

- Let's say that Joe Doe started working there last. Joe Doe is younger and more excitable, and he wants the User Name "JoeDaMan@WorldwideBrands.com".

Whenever the Domain Name is the same, each User Name *must* be different. So, the Domain Name is where the uniqueness of all Email Addressing is controlled. Again, there can only be **one** of any User Name at the same Domain Name.

That's why you see so many Email *User Names* like "Mary1273" on the Internet. Twelve hundred and seventy two *other* people named Mary probably got there before "Mary1273" did. :o) Or, perhaps this particular Mary was born in December of 1973, and she *wanted* that particular User Name. Whatever the reason, she can have that User Name as long as **no one else at the same Domain Name** has it.

Who checks to make sure that those duplications don't happen? Nobody! At least, not a real, live person. These things are controlled by the Software that runs Email Servers, which is what we're going to talk about next.

Email Servers

Remember what Servers are? They're just computers, more powerful than the average home computer, sitting in a rack at some Hosting Company or Internet Service Provider. Some of them are programmed to be Authorization Servers, some are programmed to be Web Servers, and so on. Some of them are programmed to be Email Servers. There are two basic kinds of Email Servers, as I mentioned in a previous Chapter. They are:

1. **SMTP Server**

(*Dweebish Language Translation :*)

SMTP: **"S**imple **M**ail **T**ransfer **P**rotocol. SMTP Servers are the Internet computers that accept Email from you and me, and *distribute* it to other Email Servers."

Think of an **SMTP Server** as your Local Post Office. You write a letter to Uncle Joe. You get in your car and drive over to the Post Office, and drop it in the Post Office's "Out of Town" Mail slot. If that Post Office were a computer, it would be an **SMTP Server**, because it takes that letter and sends it to one Post Office after another, until it finally gets to Uncle Joe.

If you live in Oregon, and Uncle Joe lives in Florida, your letter is going to go through several Postal Facilities on its trip to Florida. The same thing happens with an Email. The **Packets** that make up that Email are going to take the best routes they can find, from **SMTP Server** to **SMTP Server**, until they finally get where they are going.

So, where are they going?

2. POP Server

That's right, they're going to a **POP Server**!

(*Dweebish Language Translation:*)

POP: "**P**ost **O**ffice **P**rotocol. POP Servers are the Internet computers that hold the Emails that people *send to* us, until we pick them up."

You can think of a **POP Server** as a wall full of P.O. Boxes. I'm sure you've seen them in your local Post Office (All those little metal doors in one of the walls at the Post Office with the little keyholes in them)? Those are Post Office Boxes or P.O. Boxes for short. People rent them, for different reasons. Some people don't get mail delivery where they live. Others use P.O. Boxes for business reasons.

Whatever the reason, a wall full of P.O. Boxes is a great way to think of a **POP Server**. Let's say that Uncle Joe has a P.O. Box. You mailed him your letter. It's traveled through many different Postal Facilities on its way from Oregon to Florida. Finally, it lands in Uncle Joe's P.O. Box.

It's going to sit there and wait for Uncle Joe to drive over to the Post Office and pick it up. So, when we relate this all to Internet and Email terms, it's the same process:

- You log on to your Internet Provider in Oregon, (such as AOL), and send Uncle Joe an Email.

- AOL's **SMTP Server** sends your Email to the next **SMTP Server** down the line, and so on, until it finally reaches the **POP Server** of *Uncle Joe's* Internet Provider in Florida (EarthLink, for example). That's where it stops. It sits on that **POP Server** in a computer Folder, and waits for him.

- That Email sits there on the **POP Server** of Uncle Joe's Internet Provider until *he* logs on to the Internet, and picks up his Email. The Email is then usually erased from the **POP Server**, and the delivery is complete.
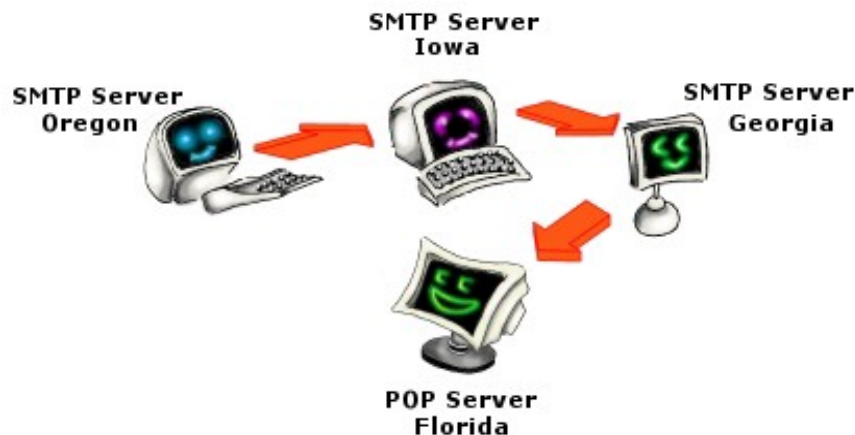
Whenever a new customer signs up with AOL, or EarthLink, or any other Internet Provider, part of the sign-up process is choosing a User Name for that person's Account. As I said earlier, the Server's software makes sure there are no duplications. The customer will type the User Name they would like into the Account sign-up Web page. If it's already taken, the page will say, "Sorry, that User Name is in use. Please choose another one".

That will happen over and over again, until that person chooses a User Name that is not in use already, on that particular Domain Name.

So, here's what we've just talked about:

- Email Addresses are made up of **User Names** and **Domain Names**, with the @ symbol in between.

- No two User Names can be the same *on the same Domain Name*.

- An **SMTP Server** is an Email Server on the Internet

that *sends* Email to its proper destination.

- A **POP Server** is an Email Server that *receives* Email, and holds it until its intended recipient logs on to the Internet and gets their Email.

Now let's talk about: **Email Clients**

Normally, when you think of the word "Client", you think of Lawyers, or Real Estate Agents, or something like that. In the computer world, a Client is a software program that interacts with another software program. That's what your Email software on your Home Computer is; it's called an Email Client.

There are many different Email Clients out there. They all have slightly different looks and features, but most of them do all the things you will need them to do.

However, I *very strongly recommend* that you use Microsoft Outlook Express as your Email Client software. I've used others, and they just don't stack up. Since Outlook Express is FREE, it's very easy to use, AND it's got *all* the features you need to help with your Home Business, it's hard to say no. :o)

Outlook Express comes FREE with Microsoft's FREE Internet Browser; "Microsoft Internet Explorer", which is *also* FREE. Now, I realize that you may have AOL's Internet Browser, or some other Browser, like Netscape, for example. Since Microsoft Internet Explorer is by far the most common and popular Browser on the planet, most of the Websites you visit will be *"optimized"* for Internet Explorer. That means that the people who created the sites realize that most of their visitors will be viewing it with Internet Explorer. Because of that, they have made sure that their Web Pages work best with Internet Explorer.

So, even if you have the AOL Browser, or something else, I seriously recommend that you use Internet Explorer when you go online. You probably already have it. It comes included with virtually every Windows computer sold today. If you don't have it, you can get it for FREE at www.Microsoft.com/Windows/IE. Even if you normally use the AOL Browser or something else, you can still open and use Internet Explorer and Outlook Express, after you go online with AOL or whatever Internet Provider you use.

Ok, so there *was* one commercial in this EBook. It's not a paid advertisement, though! I simply recommend Outlook Express because I think it's your best bet.

<u>Address Management</u>

We talked before about the reason for having Email Accounts along with your Domain Name and Hosting. You're going to want to set up Email Addresses that have the *same Domain Name as your Website does*. It doesn't look good to have a Website called LeftHandedPants.com, and have your Contact Email on the site listed as LeftHandedPants@Hotmail.com, or something like that. Your customers are going to know that you're using a free Email Service (Hotmail), and that's a dead giveaway that you are a very small operation!

The same thing's true if you were to use your AOL Email Address, your Earthlink Email Address, or any other address that isn't your own Domain Name. In business, you need to give the impression that you are a solid company that pays attention to details like those. Otherwise, you *will* lose sales.

We already went over a lot of information on Email in Chapter Four. Also, when you actually begin to do these things on the Internet, with your own business, you're going to get a good deal of specific help from your Hosting and/or Domain Name Company on how to set up your Email Addresses and Accounts. Because of that, I'm not going to re-hash old ground, or get too technical in this chapter.

There are two basic scenarios in which you can set up your own Email Addresses that end in your Domain Name, so let's take a look at those.

Scenario One:

Buying your Web Hosting (Ecommerce Store) from one Company, and your Domain Name from another.

We talked about the reasons that you might buy your Domain Name separately from your Web Hosting. Sometimes the Web Hosting Company you like just doesn't have the Email and URL options you want (Chapter Four). So, you get your Domain Name separately, from a Domain Name Registrar that *does* offer those extra Email and URL services and controls.

If you do that, you will most likely be using Email Forwarding.

Now, we've already gone into detail about Email Forwarding, in Chapter Four, on Domain Names. We don't need to repeat all that here. Let's just look at the reasons for using Email Forwarding at this point.

Let's pick an Email Address that I want to set up for my LeftHandedPants.com Domain Name. Say, for example, that I want to put the Email Address "Sales@LeftHandedPants.com" on my Website. On my Website, I'll tell anyone who has questions before they buy from me to use that Email Address to ask the questions.

I'm going to go to my Domain Name Control Panel, as we discussed in Chapter Four, and I'm going to set up that Email Address and have it **forward to my Home Email Address.**

Then I'll set up another Email Address I want, such as "ShippingInfo@LeftHandedPants.com", and I'll forward *that* to my *Home Email Address* as well. I'll tell my Website visitors to use *that* Email Address to ask questions such as whether their orders have shipped yet.

Then, maybe I'll set up "Support@LeftHandedPants.com", and tell my visitors to use *that* Email Address to ask questions about using my Website and Ordering System. I'll set that up to forward to my Home Email Address as well.

Are you seeing the pattern here? My Home Email Address, whether it is an AOL Address, an Earthlink Address, a Roadrunner Address, etc., it's **where I need to get all my Email.** No matter what the Email Address is called on my Website, I only have one Email Account on my Home Computer. That's the Email Account I got from my Internet Service Provider. So that's where I have to pick up any Email from my Website.

In order for me to get that Email, it has to be *forwarded* to that Home Email Account of mine.

There are two reasons for creating all these separate Email Accounts and having them all funnel down to my one Home Email Account:

1. When I first start out in business, I'm probably going to be a one-person operation. I don't have to hide that fact from my Customers. However, I don't have to advertise that fact, either! The more my business looks like a bigger company, the more sales I'm going to get. All those different Email Addresses give the impression that my company is bigger than it is. Again, I'm not suggesting deception here. If a customer wants to know how big my company is, I'm going to tell them. However, if they don't ask, I'm not going to volunteer the information. :o)

2. When you have all your Website Emails funneling down to your Home Email Address, and they are coming from different Email Addresses like the ones I'm setting up, they are easier to separate on your Home computer. I talked about using Microsoft Outlook Express as your Email Client on your Home computer. With that free Email Client, you can set it to separate Emails that come from different Addresses into different "Mailboxes" on your Computer.

You can tell Outlook Express to use "Message Rules" to put all the Emails that come from "Support@LeftHandedPants.com" into one Mailbox on your Computer. You can tell it to separate all Emails from "ShippingInfo@LeftHandedPants.com" into another Mailbox on your Computer. And so on. Here's what that looks like in Outlook Express:

See the three different Mailboxes (they're called "Folders") under my Email Inbox? I've told Outlook Express to drop Emails from "Sales@LeftHandedPants.com" into the "Sales" Mailbox, Emails from the Address "ShippingInfo@LeftHandedPants.com" into the "ShippingInfo" Mailbox, etc.

Then, when I reply to my Customer Email, I don't have to constantly "switch gears" by answering a Shipping Question, then a Sales Question, then a Support Question, etc. I can open the Sales Mailbox and answer all those questions first, then open the ShippingInfo Mailbox and answer all those questions, etc. What I will probably do is answer the Sales and Support questions *first,* since those questions probably have to do with whether or not I'm going to get a future order from a Customer.

It's basically a Home Computer filing system for your Incoming Email, and it works very well!

So, when you get your Domain Name separately from your Web Hosting, you use *Email Forwarding* to set up different Email Addresses for your site. Then you can funnel them all to your Home Email Account, and automatically file them separately in Outlook Express. :o)

Scenario Two:

If you use a Web Hosting Company that *includes* some good Email And URL Services, things are a little different. While everything we talked about above is basically the same, you won't have to use your Home Email Account to receive your Email. The Web Hosting Company will provide you with your own "business" Email Account.

Please keep in mind that an **Email Account** and an **Email Address** are two different things!

- An **Email Account** is something you log in to on the Internet to pick up your Email and save it on your Home Computer. When you log in to AOL, for example, they also automatically log you into your AOL Email Account, and your computer says, "You've Got Mail!"

- An **Email Address** is simply the Address that someone uses to *send* Email to you. That Address is what gets their Email to your **Email Account**. Then you pick up that Email from your **Email Account**.

A Web Hosting Company that provides you with Email Services along with your Website will give you *separate* **Email Accounts** that you can log into and pick up *only Email from your Site's Email Addresses*.

This still works with services like AOL. For example, if you log on to the Internet through AOL, you can do the following:

1. Use AOL to log on to the Internet.

2. AOL will log you into your Home Email Account, and you pick up your personal Email there.

3. *Then*, you can open Outlook Express, and log into your **Website's** *Email Account*, and pick up your *business Email there*.

You would then let Outlook Express sort your business Email into the Mailboxes we talked about a few minutes ago, if you decide to set it up that way.

If you do use your Web Hosting Company's Domain Name and Email Services, you will still be able to set up different Email Addresses, just like we talked about above.

So, that's the difference in the two Scenarios:

1. If you get your Domain Name and Email Services *separately* from your Website Hosting, you usually end up forwarding all your Website Email Addresses to your Home Email Account.

2. If you get your Domain Name and Email Services from your Web Hosting Company, you will usually end up with *separate* Email Accounts that you log into in order to collect only your business email.

There are other, lesser features that differ between the two, but either way you go, it works just fine. :o) Now, let's finish up this Chapter with some information about a tool that you might find very useful:

Autoresponders:

When someone calls your house, and you're not home, chances are your phone answering machine will pick up the line and play your recorded message. Some people simply record answering machine greetings like "We're not home. Leave a message. (beep!)"

Others get more creative, and record 60 seconds of a song that no one can recognize because it's so distorted, and *then* say, "We're not home. Leave a message. (beep!)"

Then, the person who called you can choose to either leave a message, or not, depending on how badly they really want to get a hold of you.

Autoresponders are similar, but not quite the same. An **Autoresponder** can *tell* someone something, but it can't take a message. It's like an answering machine that's set to give an outgoing greeting, but not to take an incoming message. For example, if you call someone at a business, and that person is out of town and won't be back for a week, that person's phone message to you might be, "Hi, this is Bob. I'm traveling on business until

the 18th. Please either call me back when I return, or you can call Megan at extension 132 if you need help right away."

   In a case like that, Bob's phone message will not give you a chance to leave a message for him. That's what an **Autoresponder** is like. When people Email your business, they want to know that you at least got the Email. This is especially true of customers who are dealing with you for the first time. So, many of us who are in business online use Autoresponders to simply tell our customers that we got their Email, and will reply to it soon. Here's how it works:

1. Your customer sends an Email to you, through your Website, saying "Hi there. I'd like to know if the Sneeze Guards you sell protect against high-velocity Power Sneezes, or just regular low to medium-velocity sneezes. Please reply and let me know. Thanks."

2. That Email will end up in your Email Account, waiting for you to pick it up and answer it. However, if you're like most people who start a small online business, you're probably still working the Day Job, and you can't answer that Email right away. You don't want to leave your customer hanging until you get home from work, because they may go somewhere else in the meantime, and buy a Sneeze Guard from another company. You want to at least let them know that you got the message and will get back to them. So, you use an **Autoresponder**.

3. At the same time the customer's Email is delivered to your Email Account, your **Autoresponder** sends an *immediate return Email* to that customer. It can give the customer whatever general message you want it to. For example; "Thanks for contacting our Sales Department. Your Email has been received, and will be answered as soon as possible by our Sales Staff. We appreciate your shopping with Sneeze Guards R Us!"

   Even though that's not the answer your customer was looking for, they did get an immediate response from your business, which makes you look very good. You can follow up and answer the specific question as soon as you get the chance.

So, how do **Autoresponders** work?

Well, first let's be clear on the fact that each **Autoresponder** you set up can give only ONE

answer. So, if you have *different messages* that you want to send back depending on the *Email Address* that the customer used to reach you, you have to set up an **Autoresponder** for each message.

For example, if your customer emailed you at your "Sales" Email Address, (like "Sales@LeftHandedPants.com", for example), you might want your **Autoresponder** to return the message I mentioned above.

If your customer Emailed you at your "Shipping" Email Address, you might want to send an immediate reply with a slightly *different* message. Something like "Thanks for contacting the Shipping Department at Sneeze Guards R Us. Your Email will be handled by our next available Shipping Representative."

Some Web Hosting Companies and Domain Name Registrars offer **Autoresponders** as part of the Hosting or Domain Services you get from them. Here's how they work:

If your Hosting or Domain Company offers you **Autoresponders**, you will find them in your Email Control Panel. They'll look something like this:

Autoresponder Controls

Email Address @LeftHandPants.com	Response to Send	"Reply To" Address	Forward To Address
Sales	SalesResponse.txt	Chris@LeftHandPants.com	Chris@LeftHandPants.com
ShippingInfo	ShippingResponse.txt	Chris@LeftHandPants.com	Chris@LeftHandPants.com
Support	SupportResponse.txt	Chris@LeftHandPants.com	Chris@LeftHandPants.com

Looks complicated, doesn't it? :o)

Don't worry; it's just the Dweebish at work again. This is really pretty simple. Let's take this bit by bit, and explain what it means. Starting from the top left Header:

- **Email Address @LeftHandedPants.com:**

    This just refers to what I want to name the Email Address that this Autoresponder will work with. The first Email Address listed in this section is **Sales**. By typing that word, "Sales", in that section, I have just created an Email Address called

"Sales@LeftHandedPants.com".

- **Response to Send:**

At this point, your Email control Panel needs to know what Response to immediately send to anyone who Emails me at "Sales@LeftHandedPants.com".

Some Control Panels allow you to type in the actual words of the Response you want to send, like "Thanks for contact our Sales Department, ..." etc. **Other Control Panels** need you to *create a file* that contains those words.

In this example, my Control Panel needs a *file*. All that means is that I opened up a simple Word Processing Program on my Home Computer, like Windows' "Notepad", and typed my Sales Email response into that program. Then I saved it as a file (SalesResponse.txt) and sent it to my Website.

It's not important here how that is done; your Email Control Panel will have a complete Help Section that will tell you how to do that. Many of these Control Panels have completely different ways to do that, and I couldn't possible cover them all here. :o)

The point is that I want everyone who Emails me at my "Sales@LefthandedPants.com" to get an immediate Email back that contains whatever message I typed into that **SalesResponse.txt** file.

- **"Reply To" Address:**

This is pretty simple. Whenever you get an Email, it contains a "Reply To" Address. That means that you can click the "Reply" button, and write a Reply back to that Email, right?

Well, people aren't supposed to Reply to these automated Autoresponder messages, but sometimes they do anyway. When they do, I don't want to reward them by letting them directly through to ME. They have to wait in line like everybody else, and I'll answer their Email in turn. So, if they try to Reply to the Autoresponder message, I want that Reply to go right back to the Autoresponder. Then, they'll get *another* Autoresponder message, exactly the same as the first one. "Thanks for contacting our Sales Department...", etc. If you get someone who's going to be annoying enough to Reply to Autoresponder messages, they can do it all day long, and they'll just keep running in circles. :o)

The point of the Autoresponder is to tell the customer "Thanks, we got your Email. Please sit tight and we'll get back to you". That's all it's for.

So, I send them right back to that same Autoresponder if they decide to Reply, by placing the same Email Address, "**Sales@LeftHandedPants.com**", into the **"Reply To:"** Section.

- **Forward To:**

The Address that I put in *this* Section is the Address that I want the customer's Email to go after my Email System has sent them the Autoresponse. It's my own personal Email Address for my Website. Here's how this works:

  o The customer Emails "Sales@LeftHandedPants.com".

  o My Autoresponder for that Email Address sends them an *immediate* response, that says "Thanks for contacting our Sales Department…", etc.

  o **Then**, the system Forwards that customer's original Email to **me**, so that I can answer it when I have time.

So, the **Forward To** Address is where I want the Autoresponder to send the customer's Email *after* it has told my customer to "sit tight" so that I can get back to them.

The Autoresponder itself is contained within your Web Hosting or Domain package, and you'll find that using it is easier than reading bout it, which is true of most things. However, it definitely helps to understand how it works *first,* before you go around pushing buttons. Pushing buttons before you understand them can cause you a great deal of suffering in your Internet Business! :o)

So, between Chapter Four and this Chapter, we've covered a *lot* of detail as to how Email works behind the scenes for your business.

Why the heck do I need to Understand this stuff?

Email is going to be a very important tool in your business. It will be the main method you use to communicate with your customers, early on. I don't need to say much here about the fact that the more you know about how Email works behind the scenes, the better off

you are when you start setting it up for your business.

As I've said, you will have a lot of Help and Tech Support available when you start working in this area, and it's not as hard as it probably seems right now.

However, remember that there are Lazy Techs out there, and sometimes if you don't know to ask about something (like Autoresponders), they may not even tell you that you have them available!

Knowledge is Power. :o) Now, let's get into some *more* Dweebified stuff, and take a look at how Search Engines work behind the scenes, in Chapter Eight!

Chapter Eight
Search Engines

Getting the Word Out!

When people search for products to buy on the Internet, they go to Search Engines. For that reason, you'll want to Submit your Site to the seven or eight big Search Engines out there. Yahoo, Google, MSN, etc. Or, you'll want to use an Internet Mall Store that can bring you all kinds of Customer Traffic *before* you even Submit to the Search Engines.

Once again, though, this book was written to help you understand how the Internet *works*. So, this Chapter is not about how to get the best Search Engine Ranking for your site. It's not about Keywords, and Meta Tags, and all that other Marketing Stuff. There are books and services and people who specialize in all that. You'll get plenty of help with Submitting your Site from the Web Hosting Company you choose.

This Chapter *is* about the basic concepts behind Search Engines, so that you will understand more about what you're doing when you *do* go out there and try to get your Site ranked high in the popular Engines.

Now, I think we all have an Internet User's understanding of what a Search Engine is. You go to a Search Engine, like Yahoo.com, and you type things that you're looking for into the Search window. Yahoo obligingly searches the Internet, and gives you all the information it has on whatever it is you typed. Simple enough, right?

We probably all realize, too, what *ranking your Site* means. Either you or someone you hire Submits the name of your Web Site to a Search Engine. That Search Engine looks over your site and indexes everything it can find. Then, when other people use the Search Engine to find things that are on *your* Site, a link to your site will appear on that person's page of Search Engine Results.

Ranking refers to how close to the top of that Search Engine Results Page *your* site ends up.

It's like naming your business "AAAAAA Carl's Plumbing", so that when someone opens the Yellow Pages to the "Plumbing" section, your business shows up first on the page. You get more business when you're first on the page, right?

As I said, there are many books and people out there that are dedicated to the mechanics of doing just that. What *we're* going to talk about is the *concept* behind the Search Engine.

So, here's the dreaded List of Search Engine Subjects for this Chapter:

Crawling

Indexing

Algorithms (What??!)

Database

Information Sharing

In this Chapter, we're going to take a look at **The Main Street Gazette**, a small-town Newspaper published by a man named Jojo Sneed. We'll go through the techniques he uses to gather information, sort it, decide what's important and what's not, and publish the information that he thinks is most important.

After we explore the workings of the Main Street Gazette, we'll relate them to how Search Engines work. Sound like fun? Let's get started!

Jojo Sneed thinks it's very important that his small Main Street Gazette newspaper tries to keep up with the big guys in the newspaper business. The more real National and World News Jojo can print in his paper, the more likely people are to buy it. The more people buy his newspaper, the more he can charge for advertising. That's how newspaper owners make most of their money; selling advertising.

So, Jojo has subscriptions to many of the very biggest newspapers from around the country. He doesn't have time to comb through them all by himself, looking for news, though. He's just one guy, and he has other things to do in order to publish his newspaper. So, he has a small staff to help him:

- **Wilbur,** who used to be the Town Librarian before he retired.

- **Angie**, who wants to be a newspaper owner someday.

- **Becka**, who also writes occasional Columns for the Gazette.

Every morning, a big pile of major newspapers from all over the country gets dropped off at The Main Street Gazette.

Wilbur starts combing through the pages of those newspapers, first thing every morning; separating advertising and other "fluff" from the hard news information he's looking for. He quickly clips all those news articles from the other papers, and puts them in a big pile.

Angie sits at a desk next to Wilbur, and picks up the news and information as fast as

Wilbur can clip it from the papers. She begins Indexing all those articles. She sorts through the articles Wilbur has gathered, and puts them in categories, such as Type of article (Crime, Environment, Human Interest, Science) and more. She then sorts those categories by the lengths of the articles. Then Angie sorts those by Author (people are more interested in reading articles by the Heavy Hitters than by some journalist they never heard of).

Once she's done all that, she goes through them again, and separates those categories into more sub-categories. For example, the Crime articles get sorted by White Collar Crime, Thefts and Robberies, Murder articles, and so on. When she's finally finished, she has taken a huge pile of all kinds of scattered information, and Indexed it into something a lot more meaningful.

Next, along comes Becka. She begins the process of deciding what information is fit to keep, and what is not. Becka knows Jojo's standards for his newspaper, and she knows its readership. She has a very good sense of what an article needs to contain in order to end up on or near the front page of The Main Street Gazette. So, she goes through all the articles and information that Angie has Indexed, and *prioritizes* them. She sorts all that information again, from best to worst, according to Jojo's standards for the Main Street Gazette. She throws out any information that she feels does not meet those standards.

Finally, Jojo takes Becka's results, and turns them into a Newspaper. He takes all that information that she has decided meets the standards and requirements of the Gazette, and places it into the proper sections of the newspaper. The Local Section, the World Section, the Entertainment Section, etc.

When he's done, the Paper goes to press, and the small-town Main Street Gazette is ready for it's readers. (Yes, I know…the news is a day outdated, right? It's okay…this is just an example used to make a point!)

So, let's review what's happened here:

1. Wilbur has gathered all the information he could find from sources around the world.

2. Angie has Indexed all that information into an understandable system.

3. Becka has sorted the information according to certain standards.

4. Jojo has divided the information that meets his standards into sections, then prioritized it for presentation to the public.

I'll bet you can guess where we're going with this, can't you! Yes, a **Search Engine** is **very much like a newspaper**. Or, perhaps we should say it the other way around, since the Newspapers came *first*, right? :o)

However you slice it, the process that our friends at The Main Street Gazette just went through is the same basic process that a Search Engine goes through.

What is a Search Engine

At its most basic level, a Search Engine is simply a small collection of Computer Programs that are linked together. Where do they live? Uh-huh, you got it…on an Internet **Server** somewhere out there in the world.

The purpose of a Search Engine is just like the purpose of a newspaper. Gather any and all information that people want to see, and put it somewhere that people *can* see it.

Search Engines make their money the same way, too. They *sell advertising* on their pages. You know you've seen it and been annoyed by it! No matter how much you like the particular Search Engine you use, you know that you won't find a *single* Web Page of that Search Engine that isn't *plastered* with advertising.

So, basically, Search Engines operate just like newspapers, complete with Indexes, Sections, Advertising, and everything else you'll find in a newspaper!

Now, let's compare the steps taken by The Main Street Gazette, with the steps taken by Search Engines in placing all that information in front of the general public.

Web Crawlers

(*Dweebish Language Translation:*)

Web Crawler: " A Computer Program that 'surfs the Internet', gathering information."

Remember what Wilbur does, to kick off the day's Information Gathering at the Gazette? He *collects information* from all those major newspapers from around the world. He doesn't really care too much what the information is. His job is to simply gather it, and place it in a pile.

When it comes to **Search Engines**, the same process occurs, but it occurs on the Internet. Engine companies, which are called Web Crawlers. As you can imagine, the nickname for these programs is "Spiders". The **Spider** is a computer program that *surfs the Internet automatically*. The **Spiders** owned by the different Search Engines surf the Internet every second of every day of every week of every year.

A **Spider's** job is very simple, just like Wilbur's. The **Spider** operates in the background of the Internet. You'll never see one working. It quietly and methodically surfs thousands of Web Sites every day, and automatically clicks on all the links of those Web Sites. It keeps records of the information it finds on every single Web Page it visits. In other words, it collects a big pile of information. :o)

Spiders do more than simply collect random information, though. Much of the information they collect is from people who have *submitted* their Web Site addresses *to* the Search Engine. Submitting your Site to the Search Engines is an important part of your Marketing. In fact, it's big business. There are people out there who will submit your Site to the Search

Engines *for* you, for a fee. We'll talk about that in a little while.

So, while the **Spiders** do go out and collect random information while surfing the Internet, they also follow up on *submissions* to the Search Engine, and gather that information as well.

Indexing

At the Gazette, Wilbur collects a big pile of information. Wilbur is the Gazette's "**Spider**".

Another part of the Search Engines' computer software **Indexes** all that information, just like Angie does at the Gazette. All the info gathered by the Search Engine's **Spider** has to be put into an understandable indexed form. A to Z, Left to Right, Top to Bottom. Simple, right? For our purposes, that's really all we need to say about Indexing. :o)

Algorithms

Here's the Search Engine term that most people don't understand. It sounds like a really tough word, too. Like there's something lurking behind it that will cause confusion and mental anguish.

Well, it's really not so bad. It's just gotten a bad reputation, because it comes from higher mathematics. (Ugh!) Algorithm isn't a Dweebish word. In fact, it predates what I call the Dweebish Civilization by a considerable amount of time. The word is attributed to a Mathematician who lived about 1200 years ago.

As scary as this word sounds, it's really not scary at all.

Let's look at a simple Algorithm. Let's say that every night, your dog Spike needs to be walked, so that he can "use the restroom, so to speak. :o) You and Spike have exactly the same routine every night:

- You clip Spike to his leash.

- You open the front door, and walk him to the street.

- You and Spike turn left down Maple, and left again on Taft.

- Spike dutifully leaves a thoughtful deposit next to the fire hydrant in Mrs. Bunratty's front yard.

- You whip out your Pooper Scooper and a plastic bag, collect Spike's contribution to Mrs. Bunratty's lawn décor, and continue on your way.

- A couple more left hand turns, and you've come around the block and back to the house.

- You take Spike inside, and unclip his leash.

That, believe it or not, folks, **is an *Algorithm!*** It's simply **the same procedure used to solve the same problem, time after time**.

We talked about Becka, and her role at the Gazette. Remember that Wilbur is the Spider; he gathers information for the Gazette. Angie does the Indexing, putting Wilbur's information into an understandable form for Becka.

Becka is the one who knows the Gazette's standards and readership so well. She's the one who decides what information fits the Gazette's standards better than other information does. Using the same standards and procedure every time, she "ranks" that information according to how the Gazette's owner thinks it should be ranked.

At a Search Engine company, Becka would be the **Algorithm** part of the Search Engine computer program.

Each Search Engine company has it's ***own computerized Algorithm*** for deciding how Web Pages should be "ranked" (which pages should show up higher in the Search Returns than others).

Those Algorithms *change all the time*!

Why? Look at it this way. In the newspaper business, there are lots and lots of writers who need to get their stories published by newspapers. There is a tremendous amount of *competition* between those writers. They all want their stories on the Front Page of the paper. Well, there is only a certain amount of *room* on the Front Page of any newspaper.

Writers who submit their stories to more than one newspaper often submit *slightly different versions* of those stories to different papers. They know that each newspaper has a different Editor in Chief, and each of those Editors has slightly differing taste in how stories are written. Writers learn the different tastes of those Editors, and slant their stories *to* those tastes, in hope of getting that Front Page spot from each different Editor. So, each Editor gets a slightly different version of the same story from a writer, *slanted* according to what the writer thinks that Editor's *tastes* are.

The Owners of those newspapers are in competition with *each other* as well. They all want to sell more newspapers than the other newspaper owners. So, they *want* their Editor in Chief to have different taste than the Editors of all the other papers. Otherwise, all the newspapers would be exactly the same, and it wouldn't matter *which* paper anyone bought.

Search Engines are the same way!

Each Search Engine develops it's own Algorithm for deciding which bits of information are better than other bits of information. They create those Algorithms based on what they think their visitors want to see. They *all,* of course, hope that they are creating the *best* Algorithm for prioritizing the information gathered by their Spiders, so that they will end up with the most popular Search Engine in the world.

So, why do they *change* their Algorithms all the time?

There's a good reason for that, and we can look at the newspaper business once again for an explanation.

Writers are always trying to figure out what an Editors tastes are, right? They want to slant a version of their story to each particular Editor of each paper, so that they can get as close to the Front Page as possible. Editors, however, are human. Their tastes can and do change over time, and also as a result of new opinions and information. Editors also don't like to be "figured out" by a writer. It makes an Editor unhappy to see that a certain writer always slants his stories a certain way in order to gain that Editor's favor, even when that slant distorts the *information* in the story. So, Editors are *Human Algorithms* who change their policies whenever they think it's best to do so.

However, a **Search Engine Algorithm** is a **computer program**. It *can't* **change** it's policies by itself whenever it thinks it should. It can't *think*, period. It just does what it's programmed to do, time after time.

After a certain amount of time passes, people begin to figure out how each Search Engine Algorithm works. In fact, there are companies out there on the Internet whose *entire business* is figuring out how each Search Engine's Algorithm works. They're called **Search Engine Consultants.** When these Search Engine consultants figure out a Search Engine's Algorithm, they do one (or both) of two things:

- They *sell* that information to people who are trying to get their "stories" (Web Sites) on the "Front Page" of that Search Engine.

- They charge a Consulting Fee and do the work needed to place people's Web Sites on the Front Page of that Search Engine.

The Search Engine companies don't like that. Just like a newspaper Editor, they don't like to be "figured out", and then end up providing a Front Page of Search Results that is slanted toward their Algorithm, whether the information is accurate or not.

Basically, that kind of thing gives people the "Key" to their "Front Page", and that's a BIG no-no for the Search Engines!

So, they are always changing their computerized Algorithms, to keep the Search Engine Consultants off balance, and to constantly present a fresher approach in the information that makes it to the Front Page of their Search Returns.

Okay, that's a lot of information to digest, so let's review **Algorithms**:

- An Algorithm is simply the same procedure, used over and over again, to accomplish the same goal.

- Search Engines create computerized Algorithms that prioritize the information gathered by their Spiders and Indexed by their software.

- The Web Pages that are designed to most closely match a particular Search Engine's Algorithm get closest to, or *on* that Search Engine's Front Page.

- Search Engines change their Algorithms all the time, so that Search Engine Consultants can't sell the "keys" to the Search Engine's Front Page.

What's in a Word?

After all this talk about Algorithms, it becomes pretty obvious that an Algorithm is the Key to the Kingdom when it comes to the Search Engines.

Everybody wants their Web Site to be as close as possible to the Front Page of all the Search Engines. However, it's nearly impossible to get a Site on the front page of **ALL** the big Search Engines, because their Algorithms are so different.

For example, some Algorithms want to see less than 250 words of text on a Home Page. Some want to see more than that. Some Algorithms want to see fewer than 15 "Keywords" (words built into the site that describe what the Site is about). Some want more than 15. Some Algorithms want to see the main product line that the Site sells *mentioned* at least four times in the first one-third of the Home Page. Some don't. Some Algorithms want the site to be linked to at least 20 other related Web Sites. Some want 20 *other* related Web Sites to be linked *to* the site.

The list goes on and on and on, folks. NO one Web Site EVER fits any Search Engine's Algorithm *perfectly,* so don't knock yourself out over it. Even if one did, it wouldn't fit any *other* Search Engine's Algorithm hardly at *all.*

So, don't worry...nobody's perfect when it comes to the Search Engines! Simply follow each Search Engine's General Guidelines, and you'll do fine. :o)

Database

This is a simple thing, yet it should be mentioned.

Just where does all that information go, after it passes through the Judgment Hall of the Mighty Algorithm?

It ends up in the Search Engine's **Database**. A Database is just another computer program. Think of it as a giant, indexed filing cabinet. It contains all the information that the Search Engine has ever gathered, indexed and ranked. When you go to a Search Engine, like Yahoo, for example, and enter what you're searching for, the Yahoo Search Engine looks in its Database. It pulls out links to all the information it has on the subject, in order of the Rank assigned to that information by Yahoo's Algorithm. Then it displays those links, in order of Rank, on your Search Return Page. So, as I said, a Search Engine's Database is just a giant filing cabinet where it keeps all it's information.

Information Sharing

It should also be said that each Search Engine does *not* rely on just it's own information-gathering work. There are deals between Search Engines companies that are made, broken, and re-made on a weekly basis. They have to do with Sharing the information that they each gather.

One day, Yahoo might be sharing its Database with Google.com, and the next day with Dogpile.com. It doesn't matter to you and me that this happens. It's just good to be aware that Search Engines commonly share their databases with each other, in order to supply the most and best information they can.

In Conclusion:

There are a variety of ways to get yourself well-ranked in the Search Engines. You can simply submit your Site yourself. You can pay small fees to Search Engine consultants. You can pay medium sized fees to "Pay per Click" programs, which is a way to "buy your way into" the Front Page of a Search Engine. (The Search Engines don't like people figuring out their Algorithms and getting on their Front Page for *free*, but they have no problem *selling* rankings on that Front Page. :o)

You can also start out selling on an Internet Mall, which brings you much more customer traffic more quickly and allows you to take your time adjusting your Web Site for the Search Engines. You can find more information on Internet Malls in my OTHER FREE EBook, at www.WorldwideBrands.com.

However you do it, don't sweat it. There are lots of good books and other information out there that are specifically designed to walk you through the *mechanics* of getting listed in the Search Engines. You'll get the hang of it, just like you'll get the hang of everything else. It just takes time and patience, as I always say. :o)

Why the heck do I need to Understand this stuff?

In the course of running your Internet business, you will get involved to some extent in getting your Site ranked on the Search Engines. Knowing how they work behind the scenes has been a **great** advantage to ME personally. As of this writing, my company is ranked at *least* twice, and in many cases *four or five times*, on the *Front Page* of *every* major Search Engine. If I didn't know the things that I just told you in this Chapter, we wouldn't be there with that kind of amazing ranking today. :o)

I'll say it yet again...**Knowledge is Power!**

Okay, we're almost there, Fellow Travelers. Chapter Nine is up next.

Chapter Nine
ISPs : Internet Service Providers

Your Business Lifeline

I've mentioned Internet Service Providers many times in this book so far, but we haven't really talked about them in any detail.

Sure, we all know what an Internet Service Provider does, but there is more to the story than their TV commercials are telling you. So, we should go over just a few things. After all, we're here to understand the real story *behind* the TV commercials. :o)

Here are our topics for this Chapter:

- **What an ISP is**

- **Dial-up Connections**

- **"Always-on" Connections**

- **Satellite Connections**

- **Rates and Reliability**

- **Working while Traveling**

So, let's get to it. :o)

What an ISP is

An ISP provides the *connection* from your home computer to the Internet.

AOL is an ISP. So are Roadrunner, Earthlink, and many others. There are big ones, small ones, cheap ones, expensive one, green ones, purple ones…you know the drill by now, right? :o) Keep in mind that your ISP is the Portal through which you access the Internet, and run your business. Without it, you have no business. Just like anything else on the Internet, there are thousands of these companies who want your business. You'll find Local ISPs in your hometown phone book. You'll find the National ones on TV. You'll find people who aren't really ISPs at all; they're just reselling ISP Accounts for some other ISP.

You obviously have a connection to the Internet now, or you could not have downloaded this EBook! The connection you have right now might be good enough to run your business with, *or it might not*. There are some things to consider, and we'll talk about those in a

minute. Let's review, though, just what an ISP *is*.

I have personally been inside the "Network Centers" of more than one Internet Service Provider. There's nothing magic going on there. It's not mysterious. There are no Techno-Wizards casting spells. It doesn't look anything like the "Bat-Cave".

Internet Service Providers are simply rooms full of computers. The Rack-type computers that I showed you earlier. Those rooms could be in a shiny new office building, or in a run-down waterfront warehouse (I've been inside ISPs in both those places!)

There are racks of Modems, Authorization Servers and Email Servers. There are banks of phone lines coming in, and banks of data lines going out. There are brightly colored Network Cables hanging haphazardly all over everything. There are desks and chairs, and fuzzyheaded little plastic Troll dolls sitting on top of computer screens. Coffeemakers, Soda Machines, Snack Machines. Garbage cans and Office Supplies. Pictures of Employees' kids adorn cubicle walls. Phones ring, and toilets flush.

I say all this because you have to learn **not to be intimidated by The Gatekeepers of the Internet**.

An ISP can easily give you the impression that they are Mystical Seats of Incredible Technology, and you should never question anything they say. That's not true. They are just offices full of people and machines, nothing more. Their machines break, and their people make mistakes.

They are there to work for *you*, their Customer. So, if you have questions, *ask*. If you have complaints, *complain*. If you don't like their Service, *go somewhere else*. Too many times I've seen people get stuck with bad deals from Internet Service Providers, because they believe it when those Providers tell them that things only work *their way*, and no other. Always question Authority, folks, especially where your business is concerned. These people are your Lifeline to your business. If they screw up your Account, you can't work. So, don't let them get away with screwing up!

There, that should deflate any over-inflated impression you have about ISPs. :o) Now we're ready to talk about the details.

As we talked about in Chapter Three, an ISP simply connects you to the Internet. Whether you use a Dial-up phone connection, or a faster Broadband Connection (your TV cable), your starting point on your journey to the Internet is an ISP.

The ISP is the Gateway, the Doorway, the Entrance to the Internet. It's the Bouncer who checks your ID at the door, and lets you into the Club (the Internet) if you're qualified. It's the place that assigns an IP Address to your computer, and provides you with an Email Account on one of their Email Servers.

From there, you simply use *their* high-speed connection to the rest of the Internet to do all your Surfing.

Dial-up vs. "Always-on"

There are two basic ways that most people connect to an ISP. A phone line, where your computer "**dials-up**" a connection to your ISP, and an "**Always-on**" connection, where your computer always is connected to your ISP whether you are using it or not.

Dial-up Connections:

As we said in Chapter Three, a **Dial-up** connection means that you are only connected to your ISP when your computer actually dials their phone number and talks to their Authorization Server.

If you use a **Dial-up** connection, your computer has a "Modem" built into it. When you tell your computer to connect to the Internet, you usually hear all those beeping and skirling noises inside your computer. That's your Modem, dialing a number on your phone line, then saying, "Please let me into the Internet" to the Authorization Server at your ISP.

Your Modem converts a Digital (data) Signal into an Analogue (voice) Signal, so that your computer can "talk" to the Internet over an Analogue (voice) phone line.

At your ISP's office, there are other Modems that *answer* the phone calls coming from your computer, and thousands of other people's computers. Those Modems convert your Modem's Analogue Signal back into a Digital Signal, so that the ISP's computers can understand it. So, through the Modems at either end, your computer talks directly to an Authorization Server at the ISP, and asks to be let in to your Account.

The ISP's Authorization Server checks to see if your Account is paid up. If it is, the Authorization Server assigns an IP Address to your computer, and you are connected to the Internet! Then, you can go off and do all the Surfing you want, pick up your Email, etc.

When you're done, and you want to "log off" the Internet, you tell your computer that by clicking "Log Off" on your screen. Every ISP has a different way for you to do that, and I'm sure you're familiar with how it's done.

If you just walk away from your computer, and you *don't* Log Off the Internet, your ISP will "time you out" after a certain period of time. That is, the ISP watches your activity on your Internet connection. If it sees no activity at all for a certain period of time, say, 15 minutes or so, it automatically kicks you off the Internet, and closes your connection to your ISP. You would have to **Dial-up** again in order to get back on the Net.

ISPs do that because a LOT of people simply walk away from their computers

without logging off after they've had their fun on the Internet. If the ISP didn't "time them out" and close the connection, the ISP would have hundreds, or even thousands of phone lines in use all the time, all sitting around doing nothing. That gets expensive!

When you use a **Dial-up** connection, you get a different IP Address every time you connect to your ISP and the Internet. We talked about that in Chapter Three. It's called a *Dynamic IP*, because it's different every time you connect.

Dial-up connections are *slow*. No matter what you hear on any TV commercial, a **dialup** Account is the slowest way for you to connect to the Internet.

What does that mean to you? Well, when you're Surfing the Net, you notice that it takes time for each Web Site you visit to finish loading on your screen. That's because a **dial-up** connection is a very small Pipe to your ISP and the Internet. That Pipe can only transfer so much information to your computer at one time.

You can certainly use a **dial-up** connection for your business. Many people do. However, you will probably notice that it takes you longer to get things done than it would if you had a faster connection.

When you start your business, you are going to have to do things like sending Product Images (pictures of the things you are selling) from your home computer to your Web Site. *That* is where **dial-up** will hurt the most. It won't prevent you from doing the work. It'll just make the work take longer.

There are still many areas in the US and around the world where **dial-up** is the only option you have. *That's OK*. You just have to plan for some extra time to accomplish the work you're doing on your Internet Business, that's all!

"Always-On" Connections

The **Always-on** connection comes in a couple of different flavors, and they're related to the actual wiring you use to connect to your ISP.

1. ISDN

ISDN stands for Integrated Services Digital Network. It's a fancy way of saying that you have to install at least one more telephone line in your house to use this kind of Internet connection. :o)

Basically what **ISDN** does is give you a connection to your ISP over a plain old copper telephone wire, but faster. It's a Digital system all the way through, instead of an Analogue System, like **dial-ups** use.

2. DSL

DSL stands for Direct Subscriber Line. It's basically the same kind of thing as **ISDN**, and will more than likely require another phone line in your house as well. It also supplies a faster connection than **dial-up**, and is beginning to replace **ISDN** around the US.

3. Cable

A **Cable** connection is also much faster than a **dial-up** connection, but it *doesn't require any phone lines*. A **Cable** (sometimes referred to as **Broadband**) connection comes through your TV Cable Service.

All three of these connections are referred to as "**Always-on"**. That means that once you connect to them for the first time, you are *always* connected to your ISP and the Internet. You can walk away from your computer, have dinner, put the kids to bed, walk the dog, and come back later and you'll still be connected to your ISP and the Internet. You can go on *vacation,* come back a week later, and you're still connected. An **Always-on** connection *never* times you out and kicks you off the Internet.

There are advantages to this besides the greater speed of the connection. With an **Always-on** connection, you will have the same IP Address all the time. This makes it much easier to use remote-control computer programs like PCAnywhere. PCAnywhere is a computer program that lets you work on *your own* computer from *any other* computer on the Internet. This is pretty handy when you're traveling. You can use another computer, like your own Laptop, or a Hotel's Internet Access computer to work on your business while you're away. :o)

Programs like PCAnywhere need to know what the IP Address of your home computer is all the time, and if you always have the same IP Address, you're all set. With a **dial-up** connection, you can't use PCAnywhere, because your home computer will get timed-out and kicked off the Internet before you get to where your Hotel is and get on your Remote computer.

Also, with an **Always-on** connection, you can set your Email Client to download your Email every half hour or so, whether you're there or not. That saves you from spending the time to download a single huge flood of Email after you get home from the Day Job.

Still, though, the greatest advantage to an **Always-on** connection is *speed*. The faster your connection, the easier it is to run your business.

Always-on connections use Modems too. They're just a different kind of Modem. An **Always-on** Modem is a separate little box that sits next to your home computer. It's either connected to a phone jack in your wall (**ISDN** or **DSL**), or to a TV Cable in your wall (**Cable**).

The principle is the same with **Always-on** as it is with **Dial-up**. All this technology simply connects your home computer to your ISP, so that you can use *their* much higher speed connections directly to the Internet.

Satellite Connections

A **Satellite Connection** is a bit of a different animal. I used to have one. In fact, I've had every different kind of available Internet connection at one time or another over the years. There was a time when we lived *way* "out in the country", and **Cable** Internet wasn't available to us. I didn't want to put up with the slower speed of **Dialup**, so I decided to give a **Satellite Connection** a try.

The trouble with a **Satellite Connection** is that it *does* still rely on a plain old Phone line. They don't tell you that in the Advertising; at least not where you can see it clearly.

With a connection like this, you have to mount a Satellite Dish on your roof. Then you connect a wire from the Satellite Dish to a special Satellite Modem next to your computer. *Then* you have to connect a *phone line* to that Satellite Modem as well!

When you connect to the Internet, your computer uses the *phone line* to contact your Satellite ISP and log you in through their Authorization Server. That's exactly the same thing as a **Dial-up** connection.

Then, once you're connected, the information coming FROM the Internet gets to you faster, because you get it through the Satellite Dish. **However,** the information you SEND TO the Internet still has to go through your *phone line*, just like a **Dial-up** connection.

So, **Satellite Connections** are faster for *surfing Web Sites*. But, when you're running a business, and have to send all those Product Images we talked about FROM your computer TO your Web Site, it's just as slow as a **Dial-up** connection.

Satellite Connections can also be severely affected by bad weather. Let heavy clouds or a good thunderstorm pass nearby, and you can usually kiss your Internet connection goodbye until the sun shines again. :o)

Overall, my absolute favorite Internet Connection is **Cable**, or **Broadband** as it's being called now. It's **Always-on**, it's very fast, and very reliable.

Don't worry, though, if you don't want to spend the money for **Cable** or any other fast service right now. A **Dial-up** connection will get you by for now, and you can always upgrade if you choose to when you start to make money from your business. :o)

<u>Rates and Reliability</u>

This doesn't have much to do with how the Internet works, but it should be said here anyway, since we're on the subject.

1. Rates

You're going to see a lot of Hype on TV and on the Internet about low-cost Internet Service Providers.

Please remember that you Get What You Pay For! That's one of my Cardinal Rules, and I've always found it to be true.

Local ISPs in your hometown may offer great rates, but often do not have the equipment and people to back up their service.

Some low cost National dial-up ISPs may offer you Internet Service for less than Ten Bucks, but what they don't tell you is that they don't have many Local Access Phone Numbers. Big National ISPs like AOL and EarthLink, for example, have all kinds of Local phone numbers for you to "dial the Internet" in your area, no matter where you live. The *cut-rate* National ISPs many times do *not*. So, you may pay less for an Account, but you may end up having to dial *long distance* every time you connect to the Internet. Can you imagine how fast THAT's going to add up?!

I always recommend going with a well-known National ISP over a Local one. The Nationals have the equipment, the support people, and the local connections that you need, even though they may cost more. If you're reading this book, you're considering an Internet Business, or already own one. Don't short yourself when it comes to your Gateway to the Internet, just to save a few bucks. It isn't worth it!

2. Reliability

Different services in different areas experience different levels of reliability.

Dial-up ISPs often experience problems due to "Line Noise". Their connections are all made through Local telephone companies. Some of those buried phone lines and phone company switching banks are very old. They get wet, they get corroded, and they get twitchy. That causes "Line Noise", which most of us refer to as simply "static".

When there's noise (static) on the particular phone connection you have at any given time, your Internet connection will slow *way* down. When there's too much noise, your computer will not be able to understand the information it gets from your ISP and the Internet. After a couple of minutes of garbled information, it will just say, "Oh, forget it!" and it will hang up your connection. That forces you to re-connect and hope you get a better connection next time.

Chance are, the farther away from "town" you live, the more Line Noise you will experience.

ISDN and **DSL** connections experience those same problems with Line Noise. After all, they may be faster connections, but they still use regular old telephone lines.

Cable (**Broadband**) connections are much better in this respect. The TV Cable that carries your Signal is a much newer system. Cable TV lines haven't been hanging in the wind or rotting underground for anywhere *near* as long as all those old phone lines have! So, you'll find that **Cable** connections are much more reliable than anything that uses phone lines.

Satellite we've already talked about. You pretty much have to check the Weather Report before you log on to the Internet. :o)

Working while Traveling

If you've read my FREE EBook, and have looked over our Web Site, you know that I tell everyone that being in business is *work*. It's *constant* work.

The willingness to work hard, constantly, is what separates those who make it from those who don't. Get rich quick schemes do not work, period. *Nobody* falls off a log and lands in Tiffany's, folks. The Scam Artists will *tell* you that you can, but you're smarter than that, or you wouldn't be *here*.

The reason I say this is because I'm going to talk about how to use the Internet to work while you're away from home, probably on vacation. I'm not suggesting that you use all

your vacation time to work. You *can* relax and take a vacation.

But, while you're traveling Out West eyeballing the World's Largest Ball of Twine, *your business rolls on!* You will still have customers who ask questions and place orders. You don't want that momentum to stop, ever. So, you need to find a way to work from *wherever* you might be, at any time. Even if it's just one hour a day to answer Email and check your Web Site's orders.

There are two ways to use the Internet to do that.

1. Your own equipment

This is the method I use to run my business when I travel.

We have Laptop Computers that my Business Partners and I bought for Company use. Yes, I know… who can afford to buy a Laptop when you're first starting out? That's OK, before we *could* afford it, we used Method #2, which we'll get to in a minute. :o)

So, whenever I travel, whether on business or on vacation, I take a Laptop along. The trick here is to be able to work on my *Office* computer *from that Laptop,* no matter where I go.

Now, my Office computer connects to the Internet through Roadrunner, which is a high-speed Cable Internet connection, like we just talked about. Unfortunately, you can't take a Cable connection with you when you go somewhere.

You see, you CAN take a Dial-up connection with you when you travel. If you have a Dial-up ISP Account, you can take your computer anywhere you want to, and still log into that Account. All you have to do is ask your Dial-up ISP for a Local Phone Number in the area that you're traveling to, and you can log into your Account from there!

NOT SO with an Always-on connection, though. It's in the wall of your home or office, and that's where it's staying! So, let's say I'm spending a week on my favorite Caribbean Island, Wheredaheckawee. My Office computer is sitting back in my Office, happily humming away to itself. When I'm on vacation, it gets bored. I think it steals my paper clips. Anyway, it's connected to my Always-on Cable connection, downloading my Email and doing other things on it's own.

Meanwhile, I'm sipping Orange Root Beer in my

Hotel room on Wheredaheckawee, and I need to get some work done, but my Office computer is back in my Office. I can't get to it.

Or can I?

On my Office computer, I've cleverly loaded Symantec's "PCAnywhere" computer program. I've *also* loaded it on the Laptop computer I brought on vacation.

PCAnywhere uses a computer's IP Address to locate that computer on the Internet, connect to it, and let you work on it from *another* computer! It's very cool...you can be on a Laptop computer in a Hotel room, and actually *see* your Office computer screen *on the Laptop Screen*. You can work on that Office computer through the Laptop, just like you're sitting in your Office.

Now, I have an Always-on connection for my Office computer, as I said. That means that my Office computer is *always* connected to the Internet, with the *same* IP Address. That means that it's easy for the PCAnywhere program on my Laptop to *locate* my Office computer through the Internet, and connect to it.

But wait! How do I connect my **Laptop** to the Internet? I couldn't bring my Cable connection *with* me, and I can't Dial-in to it...it's a *Cable* connection.

So, my Office computer is sitting there on the Internet waiting for my Laptop to join the party. Only, my Laptop *can't connect* to the Internet.

The story just gets better from here, folks. Thinking ahead, as I try to do at least once every other Tuesday, I opened a *separate Dial-up* Internet Account with EarthLink when we bought our first Laptop. That way, all I have to do is call EarthLink Tech Support, and say, "Hey, I'm vacationing on Wheredaheckawee, and I need to connect my Laptop to the Internet. Please give me a Local Phone Number here on the Island that I can use to do that". EarthLink obligingly gives me a local phone number. I plug my Laptop in to the phone jack in my Hotel room, and tell my computer to connect to the Internet using the EarthLink phone number I just got.

My Laptop dials-up and makes the connection. *Now,* my *Laptop* is on the Internet from the Hotel, and my *Office* computer is on the Internet from the Office.

What's left to do? Open my PCAnywhere program on my Laptop, and tell it to go find my Office computer via the Internet. Using the Office computer's IP Address, PCAnywhere does that. Suddenly I'm working on my Office computer from an Island in the Caribbean, all because of the Internet.

Okay, for this method to work, you need a Laptop computer you can travel with, a

Home computer that has an Always-on Internet connection, and a *second* ISP Account with a *Dial-up* provider. Yes, it seems complicated and may not be affordable *now*, but it works *great,* and if you work hard you *will* be able to afford it soon enough. :o)

2. Someone else's equipment

Here's what we did before we could afford all that fancy stuff!

Most places you travel are going to have computers that you can use to access the Internet. Lots of bigger Hotels have Business Centers, where you can use one of their Internet computers. Smaller Hotels are usually near towns that have Libraries, Internet Café's, etc. You can find Internet computers available at places like those.

When you do travel, try to answer the "Where do I find an Internet computer" question *before* you leave. Life will be easier. :o)

There are two things you need to be able to access when you work while traveling:

- **Your Web Site**
- **Your Email**

Accessing your Web Site

With the way Internet Stores work these days, *everything* is on the Internet. Your Internet Store is NOT on your home computer. When you're home, and you work on your Web Site, you work on it *over your Internet connection.* So, nothing changes when you travel. You can access and work on your Web Site just as easily from *any* Internet-connected computer as you can from your home computer. No problem there. You just go to your Site, and log in as the Site Administrator with your Username and Password. That gets you into your Control Panel, and you can process orders, add products, change prices, etc.

Accessing your Email

This is where things get a bit twisted. When you're working on an Internet computer in a Hotel Business Center, or a Library, you cannot *download* your Email to that computer.

So how do you work on your Email if you can't download it and read it?

Web Mail! Yes, there is a solution, and more and more ISPs are offering it, for FREE. Instead of having to download your Email in order to read and answer it, you can use **Web Mail** to read and answer your Email *online,* without ever having to download it to the computer you're using.

If your ISP offers this, you'll be able to get to your Email through *their* Web Site. They'll have a Web Mail link that you click on. They'll ask you for your ISP Username and Password, so don't forget to bring that with you! Once you're logged on to their Web Mail page, you'll see all your Email right there in front of you. You can read it, reply to it, create new emails, etc. Just like home.

That's really all there is to it. If you want to work while traveling, without having to buy a Laptop and all the other fancy stuff I mentioned earlier, you *can* do it from any Internet computer, pretty much wherever you travel.

I suggest, though, that you check to see if your ISP has Web Mail before you sign up with them. :o)

Why the heck do I need to Understand this stuff?

This one is short and sweet, folks. You already have an Internet connection; that much is obvious. However, you need to know how ISPs work and what kinds of connections are out there. You need to know how the connections *work* as well, so that you can make a good decision as to whether you want to stay with your ISP, or move on before you start your business.

If your business is already running, you may want to make a change as you grow. If you don't know what to change *to*, and *why,* that choice will be that much harder. :o)

The information about using ISPs and the Internet while *traveling* seemed like a good fit here. It's done me a world of good to know about it, so I wanted to include that as well.

Alrighty, then...one more Chapter to go!

Chapter Ten
Ground Zero

A Tale of Two Web Sites

Congratulations! Get yourself a cookie and give yourself a big pat on the back! You've survived the infamous Dweebish Mind Torture, and have come out the other side relatively intact! You *are* relatively intact, aren't you? You may notice that your brain hurts a bit, and you might be a little twitchy right now, but that'll go away in a few days. :o)

This last Chapter is simply a quick look at the steps that are necessary to get started with a Web Site and a Domain Name. I'm going to tell you two stories, about two different people who set up their Home Internet Stores two different ways. Again, we are not going to get into the mechanics of building a Web Site. That's not what we're doing in this book. What we'll be looking at in this Chapter is getting FROM the Ground Zero starting point, TO the point where these people are *ready* to start building the actual Pages for their Web Sites.

All through this book, we've been preparing you for two things:

1. (If you're just starting out): The things you need to know to get from Ground Zero, to the point where you are ready to start creating your Web Pages for your Store.

2. (Once your Business is up and running, or if it is already): Building a ***lasting understanding of how all these things work***, so that you will be able to deal with the major Internet issues that are going to come up *throughout the months and years* that you will be running your Internet Store(s).

So, in this last Chapter, we're simply dealing with #1: Getting FROM *wanting to start* an Internet Web Store, TO *being ready to create the pages* for that Store.

You'll use all the rest of the understanding you gain from this book to deal with #2, as your business grows over the coming years. Um, no pun intended, there…:o)

"Case Study" Overview:

Let's say you have some experience in Carpentry. You've hammered together a doghouse or two, and built a shadow box so you could mount some trinkets on the living room wall.

Now you want a shed in your back yard. Which is the better way to go for you? Should you:

- Buy the materials and build the shed yourself, just the way you want it.
- Buy a pre-built modular shed that bolts together in an hour, but only comes in limited design choices.

Since you know something about carpentry, you *could* build the shed yourself. There's a very good chance that it will cost you more in materials, by the time you are all done, than it would if you bought the modular shed. It's *certain* that it will take you more *time* to build it yourself.

If you build it yourself, you get the shed exactly the way you want it, but it costs more in time and money.

If you buy the modular, your design choices are limited, but it costs less and is much easier to put together.

Either way, it's a shed. It does what sheds do. You put stuff in it, and close the door.

The same is true of Web Sites.

There are a LOT of people out there who have *dabbled* in creating Web Sites before. Those people always want to start from scratch, and build everything from the ground up *themselves.* Now, there's nothing wrong with that. However, it's going to cost more and take more time than if they were to take advantage of pre-built templates, or an Internet Mall Store (we'll discuss those in a while).

There is no right or wrong here, folks. People who build from scratch end up with Web Sites that are exactly the way they want them, and that's a good thing. People who go the easier and faster route with a Mall Store end up with something that may not be *exactly* the way they want it, but it's cheaper and easier. That's a good thing too.

Either way, it's a Web Site. It does what Web Sites do. You put stuff on it, and sell the stuff.

So, in these two Case Studies, we're going to take a quick look at someone who does everything himself, and someone else who goes for a pre-built Mall Store. It's up to you to decide which way *you* go.

Case #1: Joe Nohau Does It All!
Joe Nohau is a Man with a Mission. He's always wanted to own his own business, and computers have always fascinated him. He's spent years playing around with building his own personal Web Site, and personal Web Sites for some of his friends. He fancies himself something of a Webmaster.

Since he's also always wanted his own business, he figures that an Internet business is perfect for him. After all, he's been messing around creating personal Web Sites for years; how hard can it be!

Joe has seen those pre-built Web Sites and Internet Mall Stores, and figures they're for amateurs. With his experience, he's going to create an Internet Store that will blow everybody away and make him a lot of money.

There's nothing wrong with Joe's attitude. Lots of people take the longer road, and do everything themselves. So, let's look at Joe's particular road from the start.

Getting Legal

A little while back, Joe happened to read my FREE EBook, "Starting Your Internet Business Right!", bless his heart. :o) Because of that, he knows he has to Get Legal in order to start a business. He needs a Business Name, a Sales Tax ID, a Business Bank Account, etc. If you haven't read my OTHER free EBook yet, and you want to know how to get Legal, please feel free to download that FREE EBook HERE. It has an entire Chapter on Getting Legal.

That information on how to Get Legal doesn't belong in *this* book, except to the point of telling you that this is Joe's *first step*, and he *needs to do it*. You will need to as well.

It takes Joe a couple of weeks to take care of everything he needs to become a legal business. During that time, he starts getting other things done.

Getting a Name

Joe already knows that he wants to sell books. Not just any books; he wants to sell Do-It-Yourself books. You know, the kind that help people with projects around the house. He knows where he can get these books from a Drop Shipper, who will ship them directly to his customers' door from the warehouse.

What Joe needs now is a Domain Name for his store. He knows that it won't be easy to find a good name that hasn't already been taken. Especially since he wants a DOT-COM name. He wants people to be able to remember his store easily, and DOT-COMs are the most memorable of the Domain Name extensions (TLDs).

He's not quite ready to buy the Domain Name yet, but he wants to check out a few names to see if some of his ideas are available. So, he goes to a Search Engine, and types a Search for "Domain Names".

What he gets back is a large number of companies that Register Domain Names. Joe simply clicks on the first one. He's aware that he can check for *availability* of a Domain Name on that Site without actually setting up an Account or buying anything from a Domain Name Registrar. So, he goes to the Web Site of that first Domain Name Registrar, and uses their "Check Availability" tool. The first few Domain Names he looks for in a DOT-COM are taken. So are the next few. After a while, Joe has run through his entire list of hopeful Domain Names, and they are all taken.

Then he has a flash of inspiration. His last name was always a source of schoolyard jokes when he was a kid, and even now his friends still needle him about it. His last name, 'Nohau', is pronounced "know-how". He wants to sell "know how" books on the Internet.

Excited, Joe starts checking variations on the words "Joe's Know

How". However, once again, all the combinations he can come up with are taken already!

Joe decides then that he's going to make his Domain Name a "play" on his last name, so he tries "JoesNohauBooks.com", and finds that its available. While it's not the best choice he could make, because it's not going to be easy for people to remember that spelling, he's run out of choices. Joe decides to promote his last name heavily on the Site, and hope that people will be more likely to remember it.

Joe now knows what Domain Name he wants, but he doesn't Register it yet. He hasn't chosen his Ecommerce Web Hosting package at this point, so he doesn't know if he's going to Register the Domain Name separately, or with the Hosting Package he'll choose.

So, the next order of business is to find a Web Hosting Company for his Web Site.

He spends some time looking at the sites of various large Web Hosting Companies. He steers clear of the smaller guys, because he wants to be sure he gets the quality and support he needs. Joe wants to do everything himself, remember. So he also steers clear of the Packages that include all the extras. He ends up deciding on a **very basic** Ecommerce Plan from a large, well known Hosting Company. He's talked to them about the Web Servers they have in-house. He's found that they have a number of high-speed Pipes to the Internet that can handle his Site's Bandwidth easily. So, he goes with them for a basic Hosting Plan that simply includes:

- 300 Megs of Disk Space

- An "unlimited product" Shopping Cart

This Hosting Company also Registers Domain Names, but they do not include Email Addresses or Forwarding at the level of Joe's Plan.

Joe goes ahead and buys the Plan. A couple of days later, he gets an Email from the Hosting Company. It gives him his Web Site IP Address, and the Username and Password he needs to access its Control Panel. That Control Panel allows him to run his Shopping Cart as well.

Because his Hosting Company's plan didn't have the Email features that he wanted, he finds a Domain Name Registrar that *does,* and he Registers his Domain Name with *them.*

At this point, Joe has:
- An empty Web Site with a Shopping Cart. He can access its features with an Internet-based Control Panel that's provided by the Hosting Company.

- A Domain Name that includes URL Forwarding, and Email Forwarding. He can access *those* features with another Internet-based Control Panel that's provided by the Domain Name Registrar.

Next, Joe needs to attach his Domain Name to his Web Site. It's not going to do him

much good to try to advertise his Web Site's *IP Address* to get people to come to his future Store. No one will remember it!

So, he goes to his Domain Name Control Panel. There, he enters the URL Forwarding area, and sets it to forward his Domain Name to the IP Address of his Web Site, using a URL Frame. He Submits his changes on the Domain Name Control Panel. It will take about 3 days for the Domain Name Registrar's Nameservers to "chatter" to all the other Nameservers on the Internet, and tell them all about the change that Joe just made. After those 3 days, anyone on the Internet will be able to type Joe's Domain Name into their Browsers, and they will end up at his Web Site's Home Page. He's *made the connection* between the Domain Name that he purchased from one company, and the Web Site he purchased from another company.

Now, Joe has:

- An empty Web Site he bought from one company.

- A Domain Name he registered with another company.

- A *connection* from the Domain Name to the Web Site.

Next, Joe needs to set up Email Accounts that end in *his* Domain Name.

Since his Domain Name Registrar provides his Email Forwarding, he goes to his Domain Name Control Panel, and creates all the Email Addresses that he wants to put on his Web Site. He creates Email User Names like "JoeN", "CustomerService", "ShippingQuestions", etc. Since he's creating these User Names on his Domain Name Control Panel, the actual Email Addresses will all end in *his* Domain Name.

Then he sets the Email Forwarding to Forward all those Email Addresses to his *Personal* AOL Email Account.

There. Believe it or not, that's it. Joe now has:

- An empty Web Site on the Internet

- A Domain Name connected to that Web Site

- Email Addresses that end in his Domain Name, that he can place in different parts of his Web Site.

Joe is now ready to fire up his Web Page Building software, and start creating Pages for his new Internet Store.

Case #2: Penney Pincher builds a Mall Store

Penney Pincher is another person who is on a Mission. She's always wanted her own business. Penney has seen a few of those late-night "We'll Make You Rich On The Internet

For Just A Small Startup Cost" infomercials on TV. Luckily, Penney is very careful with her money. She's done a LOT of research, and her opinion is that those things are *garbage*. She knows that those "Incredible Offers" will rake her over the coals for thousands of dollars, and leave her with very little to show for it in comparison with the high costs. But, Penney is not the kind of person who gives up. She also knows that there *are* a lot of people who *do* make very good money on the Internet. After doing more research, she finds that the best way to do this is to do it *herself*, without any infomercial company helping her to remove huge amounts of money from her checking account. Being careful with her money as she is, she's decided to use an **Internet Mall**.

I've made mention of Internet Malls before in this book. If you want a detailed explanation of how they work, you'll find it in my FREE EBook, "Starting Your Internet Business Right!" Basically, an Internet Mall is all of the Hosting, Domain Name, Email and Shopping Cart services we've discussed, *all under one roof*. Everything offered by an Internet Mall works in basically the same way as everything we've discussed in this book, but it's all been brought together in one place.

Penney knows that this is **not to be confused** with an infomercial company. An Internet Mall is far different, and of much higher quality. The **price** of an Internet Mall Store, however, is **MUCH lower!** So, Penney goes to the Web Site of the most popular Internet Mall out there. She signs up for a Store. When going through a **single sign-up process**, she accomplishes these things:

- She gets her Web Hosting, and chooses how many products she has room on the Site to sell.

- She gets her Domain Name, and it's automatically connected to her Web Site.

- She gets her Shopping Cart, which is built in to the Mall.

- She gets her Payment Processing.

- She sets up her Email Addresses.

- She gets access to her Control Panel, which allows her to manage *all these things* in the same place. It also allows her to view important **Statistics**, like how may people visit her Site's Pages day by day.

- She gets an Order Tracking and Accounting System, so she can do her business's books.

- She can now build all her Web Pages using *pre-existing* Templates. Those are Web Pages that already exist in her Site. All she has to make are some point-and-click choices to customize them the way she wants.

So, for less than a couple of hundred dollars, and *one visit* to an Internet Mall, Penney

has succeeded in her Mission. She's got everything she needs under one roof, and in one Control Panel. She's now ready to start customizing her pages and loading Product Images and her prices into her Shopping Cart.

Which Path to Choose?

As I said, people are successful using both these methods. Joe will take longer and spend more money to create his Internet Store. But, it will be just the way he wants it. Penney has spent a lot less money, and gotten her Store ready much faster. However, she has to choose between pre-existing Web Page designs for her Site. She can't customize it to the extent that Joe can.

This decision will be up to you, and how comfortable you are with your level of experience when it comes to Web Sites.

Now, while these two stories are an important part of what I wanted you to see in this book, they are not the real point of this Chapter.

What *is* the point?

Let's put it this way. I'll bet you thought this Chapter was going to be a lot more complicated, didn't you? Did these little stories seem way too simple to you?

Well, it's *not* that hard, when you **understand it!**

If I had placed these simple stories about Joe and Penney at the *beginning* of this book, they wouldn't have been so simple to you. If, *back then*, I had thrown words like Registrar, Email Forwarding, Pipe, URL Frame, Domain Name, Bandwidth, Nameserver, IP Address and many others at you, these two simple stories would not have made much sense at that point, would they?

In fact, over the last few Chapters, I've been repeating more and more Dweebish words without re-explaining them, right?

I know you're still soaking up information, and you'll have to go back and look over some of these things again, but here's the point:

You are *reading the Dweebish Language* right now, and I'll bet you *understand it!* That's the Grail we've been Questing after, folks! It's the Shiny Nickel at the Bottom of the Pond. The Brass Ring on the Merry-Go-Round.

In the course of your Home Internet Business, you'll talk with lots of Sales Reps and Tech Support people about building Web Sites, buying Shopping Carts, Registering Domain Names, handling your Email, switching ISPs, fixing problems with your Site, and much, much more. The thing is, th**ose people will mostly be speaking Dweebish to**

you. You may not think so right now, but after this confusing overload of information sinks into your brain, **you'll be able to speak and understand Dweebish too**!

The more you **deal with** the things we've discussed in this book, the more you'll begin to **understand and remember** them. The things I've talked about in this book deal with the *understanding* that gave *me* the edge I needed to really succeed on the Internet, and I'm confident that they will do the same for you.

Knowledge is Power.

Use it wisely. :o)

Thanks for reading...I hope you enjoyed it, and learned some valuable things. **For LOTS of additional information**, and our recommendations on where to find everything you need for your Home Internet Business, please see our **FREE** Resource Center, at www.worldwidebrands.com.

Finally, go get yourself another Cookie, and another pat on the back! You now have the know-how that *most* Internet businesspeople *lack. That gives you the edge you need.* **So, get on out there and make the Dream a Reality!**

<u>About the Author</u>

Chris Malta has spent decades in and around the Wholesale/Retail industry. He is also a Microsoft Certified Systems Engineer. He has 21 years experience with computer systems. He's managed major network installations for Fortune 100 businesses, and has built Internet/Intranet and ECommerce Server platforms and web sites for several large companies.

Chris started Worldwide Brands in 1999 to establish a quality Directory of genuine wholesale suppliers that would work with online retailers and provided all methods of product sourcing. The Worldwide Brands Team researches hundreds of wholesale suppliers every business day, locating legitimate wholesalers and dropshippers to place in the online Directory.

Chris has written a number of Articles on Internet Business that have been published on countless websites and Internet Business Centers around the world, in several languages.

"Chris Malta has to be one of the most knowledgeable writers on the Internet ..."

Peter Thiruselvam
Editor; Web Pro News Magazine

Chris's EBook, "Starting Your Internet Business RIGHT!", was originally published in early 2001, and undergoes updates to keep it's information current. This EBook, is FREE, and is downloaded and read by more than 500 people every DAY. Worldwide Brands has never received a single negative comment about this EBook.

All of Chris's materials, including his FREE Articles and his EBooks can be found on our Web Site at http://www.worldwidebrands.com. Chris was 'The eBay Radio Show's' on-air Product Sourcing Editor. He did a Product Sourcing Segment on eBay Radio with the show's Host, Jim (Griff) Griffin. Chris Malta was also the writers and host of 'The Product Sourcing Radio Show'.

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