Paradigm
Computer Consulting

TechAdvisor Newsletter

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Your Small Business Technology Information Source!

Can a Cell Phone Kill Switch Deter Theft?

As smartphone ownership continues to rise (175 million cellphones sold last year in the US), so too does smartphone theft. Take San Francisco, CA as an example, half of all robberies reported last year were phone-related. To help curb this trend, crime fighting agencies are seeking help from phone manufacturers in developing a smartphone kill switch.

Read the rest Online!
http://bit.ly/ZL7fcT

About Paradigm

We are a technology consulting firm specializing in technology implementation and management for businesses. We're known for providing big-business, Enterprise-Level IT services to small and medium-sized businesses.

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The Legal Corner - Email Security

Many people mistakenly believe that email is a secure, private, means of communication – that no one but the sender and recipient will be able to see the contents. The reality is much to the contrary. Email has been aptly described as "public as a post card". While on its way to the intended recipient, email passes through multiple servers that act as relays. Mail can be intercepted at anyone of these points, and could be read by anyone with administrator access, or by anyone who may have compromised the security of that particular system. In addition to the possibility of technical security breaches, many people leave email software open on their computer desktop throughout the day, which enables prying eyes to access email that might be of a confidential nature.

So does that mean we can never communicate to clients via electronic means? No, email and other methods of electronic communication are here to stay, however a few simple steps can greatly increase security and limit your liability.

Normal email communication should not contain personal information such as Social Security numbers, bank account numbers, medical information, or credit card numbers. Additionally, attorneys need to consider if discussions being conducted via email contain strategic information that would put their client at a disadvantage if intercepted or exposed.

Technology as Easy as Turning a Key

Isn't it nice to have everything prepared for you? Of course it is. Whether it's having your dinner made for you when you get home, or having your car turned over to you fueled up and cleaned out, everybody appreciates having everything taken care of. In the world of technology, we take care of everything with our turnkey business management solutions.

The idea of using a key may seem out of place with technology. You may use a key to lock up the server room or even the server rack, but other than that, it's not like you need a physical key to access anything on your computers. The term turnkey is actually borrowed from the construction industry, today's leading market of key utilization.

One of the biggest jobs that involve solutions is house building. Between framing, electrical, plumbing, flooring, cabinets, and dozens of other tasks, constructing a house involves the coordination of one solution after another. The developer is the one to take care of everything, sometimes even the financing. These completed houses are sold as "turnkey homes" because everything is included and finished, down to even the furniture, which means all that the buyer has to do is "turn the key."

"Intellectual property has the shelf life of a banana."
- Bill Gates

Servers and Energy Costs are Shrinking with Microservers

Servers have always been one of the more expensive yet crucial pieces of your IT infrastructure. A new development in servers is the microserver, which is a stripped down version of a server. The appeal is that they can be designed to handle one task efficiently, and therefore, use fewer resources while costing less to purchase and maintain.

Microservers are not meant to be a substitute for traditional servers as much as they are designed to be complementary and alleviate them from resource-draining tasks. Microserver sales are growing and shaking up the server market. Within 2-3 years, Microservers are expected to account for one-fifth of server sales. This demand is driven primarily by the booming data center industry--aka, the companies that offer cloud computing.

The tasks that microservers are great at require little computing power. A server hosting an HTML website is a great example of this. Using a full-fledged server to do something simple, like host several HTML websites, is overkill to say the least. Dave Chalmers, chief technologist for HP's enterprise group EMEA, describes to Zdnet.com this underutilization of server resources when doing simple tasks:

> *"Full-sized servers are notorious for being energy drains. Powerful processors are one reason, requiring around 90W of thermal design power (TDP). Microserver boards will operate at TDP levels below 45W. What are you using?"*

If you think about how an x86 processor is typically built today, there are hundreds of millions of transistors on there.

A huge chunk of the real estate is involved in cache management and providing performance enhancements for the processor. When you're doing web page serving you don't use any of those transistors, so that's effectively cost and power consumption that give you no benefit.

Full-sized servers are notorious for being energy drains. Powerful processors are one reason, requiring around 90W of thermal design power (TDP). Microserver boards will operate at TDP levels below 45W. They even have the potential to dip below 10W. Even if you have no idea what a TDP is, it doesn't take a computer genius to see the difference between 90W and 10W will translate into big energy savings.

A microserver uses a single integrated circuit and has been stripped down to include a CPU, memory, and a system Input/output. This means that microservers are dramatically smaller in size. Not only do they take up less physical space, but they also don't produce near-

Technology as Easy as Turning a Key

Computers and computer networks are like houses in their own right. IT networks can be a complex web of cables that can rival the electrical and plumbing systems of homes. Just like you would prefer not to buy a home that looks good on the outside, but on the inside the walls are stripped down to the studs, so too would you prefer not to buy a workstation with the parts and the OS, but lacking the applications critical to your business.

Don't get us wrong, you very well could purchase just a barebone PC and then

take the time to shop for and install all the applications that you need. You may look at the price of going this route and think that this will save you some dough, but anybody who has spent any time having to paint, wallpaper, shop for appliances, and do any of the other dozens of jobs that it takes to make a house ready to live in, will see the value of having everything taken care of in one easy turnkey solution. Additionally, you may not really be saving money if you buy all of your technology solutions separately because purchasing everything in bundles may qualify you for a discounted rate.

With Paradigm's turnkey business management solution, we can provide you with all the technology that you need to get the job done. No matter what the job is, big or small. Whether we build you an IT network from the ground up, or hook up a new employee with a new workstation that is ready to go, we will do all the work that it takes so that all you have to do is power on your technology and turn the proverbial key. Call Paradigm at (603) 647-8614 and let us take care of everything!

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The Legal Corner - Email Security

Any communication that includes information of a personal or confidential nature should be handled through an encrypted email system. This type of system encrypts the email with a key, only accessible to the sender and recipient. Anyone intercepting the message in transit without the key will get a block of undecipherable characters.

This type of system usually requires the recipient to log into a secure website and establish a username and password the first time they get a message. The recipient can then safely log into the email portal to read and reply to the message and review any attachments. This is done through the use of SSL encryption, similar to what you see when you access your bank online.

One system we particularly like is ziptr.com. We have been testing it for several weeks and found its feature set to be robust, and the best part is there is nothing to setup or install, and it is free to get started. From a law office perspective, the other thing we like about ziptr, is how it handles documents. The ziptr.com service not only provides secure communications, it also provides secure cloud based file storage. While there are other cloud based file storage options, none integrate the file storage with secure email services. The other thing we like about ziptr, is that the email communication is stored in a conversational format, which can include multiple parties.

Another option, if you host an email server internally and are using Paradigm's email security package for spam filtering, is to add the encryption option to this service. This allows you to send secure email directly from your desktop without the need to log into a portal, as it is integrated with your mail server. The recipient will receive an email letting them know that there is an encrypted email waiting for them. Then, they will then log into the portal to retrieve it.

If you have any questions about email encryption or would like more information about how to secure your email, please feel free to email me at swalsh@paradigmcomputer.com.

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3 Communications Boundaries Destroyed By VoIP

Do you feel tied down by your phone system? Traditional phone plans can be expensive and your phone bill will grow if you try to do more, like add lines and use extra features. One of the ways that the Internet can help your business save money and grow is by replacing expensive phone plans with Voice over Internet Protocol (VoIP).

You are already using the Internet for many of your crucial business operations, and you already have a computer network in place, migrating your communication needs to the Internet with VoIP is therefore a logical next step. To sweeten the deal, not only does VoIP open up new communications possibilities, but VoIP will also provide your business with savings of 50-70% on your phone bill.

A standard VoIP package comes with dozens of features that a traditional phone company would charge extra for. Here are the three most groundbreaking features that destroy communications boundaries set by phone companies.

Long Distance Boundaries Broken!
By transferring your service area to the Internet, it now becomes virtualized which means that it's not subject to the geographical restrictions that apply to phone lines. With VoIP, things like area codes and even country codes are just formalities. This will especially come in handy for businesses that have people spread out around the globe. A salesperson on a business trip halfway around the world would be able to use the VoIP network to make a phone call back home using their home phone number. A business that is seeing money fly out the window every month because of long distance phone calls will experience the biggest savings with VoIP.

Mobility Limitations Obliterated!
With a traditional phone system, you have to leave the features of your phone plan at the office when you go home. Sure, you can use call forwarding to take calls, but you still have to leave behind all the features that you are used to. With VoIP, wherever you go, you can use your IP-enabled phone to access all VoIP features and services. This includes features like voicemail, call logs, security settings, and more.

Technology Collaboration Barriers are Taken Outside and Taught a Lesson!
Forward-thinking businesses that . . .

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http://bit.ly/ZL5JaK

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PAGE 4

Have a Backup for Your Backup

We often talk about the need to back up your data, but did you know that it is also a best practice to back up your hardware? Backing up your hardware works differently than data backup; whereas data backup involves network devices and a cloud, backing up your hard-ware is a simple matter of having extra computer components on your premise.

If your IT budget is tight, then the thought of having a closet full of spare equipment may seem a bit impractical, but when you consider the cost of downtime, then having extra computers on hand begins to make sense. Businesses experience downtime when a task that is critical to operations cannot be worked on because of equipment failure.

Downtime costs twice as much as you would think. Not only do you have a loss of revenue associated with the time lost, but you also have employees on the clock and getting paid whether. . .

Read the Rest Online!
http://bit.ly/ZL484t

We partner with many types of businesses in the area, and strive to eliminate IT issues before they cause expensive downtime, so you can continue to drive your business forward. Our dedicated staff loves seeing our clients succeed. Your success is our success, and as you grow, we grow.

Servers and Energy Costs are Shrinking with Microservers

(Continued from page 2)
ly the amount of heat as a traditional server. Less heat means that it will cost less to cool a server room.

Because microservers are small and put out little heat, they can be packed together in existing server chassis. This means that the existing components of an IT infrastructure, like cables, switches, and NAS devices can easily be hooked up to a microserver in an existing server environment. In fact, in a recent report by HP, they were able to pack 1,600 Calxeda EnergyCore microservers into half a server rack. All of these microservers were able to carry out a light scale-out application workload that took 10 racks of 1U servers. The energy savings from this exercise totaled 89%, and equipment costs was 63% less than having to fill up 10 server racks.

Microservers may work out best for medium to large-sized companies with large IT infrastructures. Although, the same principles that make microservers so efficient also come into play with an IT service from Paradigm called server virtualization. In the same way that microservers are able to condense racks full of traditional servers, so too does server virtualization allow businesses to consolidate older and energy inefficient server units into newer and more powerful models. Energy savings from server virtualization can reach upwards to 80%, and the reductions with server units can be as much as 4:1!

If you are interested in overhauling your servers to make your IT infrastructure more efficient, and if you want to see major savings with your energy bill, then call Paradigm at (603) 647-8614.

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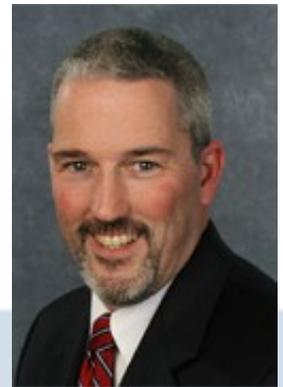
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AH, THE GREAT OUTDOORS! ISN'T IT NICE TO GET AWAY FROM TECHNOLOGY EVERY SO OFTEN?

WHAT'S NATURE'S WI-FI PASSWORD?