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**Making Sense of How the Internet of Things Applies to Different Industries**



The Internet of Things (IoT) is changing the way that businesses approach technology solutions, but its biggest impact might be in the consumer environment. With so many new devices connecting to the Internet and communicating with each other, it can be difficult to slap a label on the Internet of Things and associate it with the countless devices being created every day.

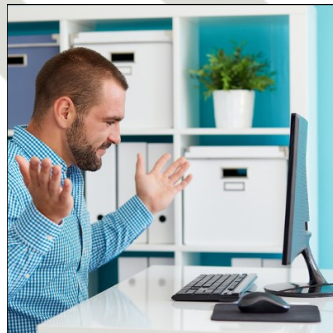
You can think of the Internet of Things as a group of mostly consumer-related devices that wouldn't ordinarily have Internet access, which have been granted connectivity

and the ability to communicate with one-another. Gartner predicts that there will be approximately 26 billion IoT devices by 2020, with other aggregates putting the figure as high as 30 billion. In many cases, these devices are small and relatively inconsequential, like fitness-related wearable devices designed to monitor someone's heart rate or physical progress.

Other, more complicated Internet of Things devices could range from small household appliances, to computerized motor vehicles. Items like thermostats and refrigerators are

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**Let's All Move on From These 4 IT Frustrations**



Technology is supposed to make things easier, yet it's a common source of frustration when it doesn't do what it's supposed to. As an IT company, we experience technology frustrations all the time, and we wish that many of these frustrations could just be eliminated altogether. In our opinion, here are four technology frustrations that need to go.

**Passwords**

If you follow the best practice of having a different password for every single account that is complex and hard to remember, then you're essentially left with a long list of complex passwords that is impossible to remember. Even if you utilize a password management tool like LastPass, you can still run into problems with passwords getting stolen, or having to navigate to a password page before you enter your account.

**Avoid Getting Fined By Understanding How Regulatory Compliance Works**



Technology is invading all practices, including those of medical offices and

other health-related institutions like hospitals and dental offices. With the advent of electronic medical records (EMR) and their management...



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**About Celera Networks**

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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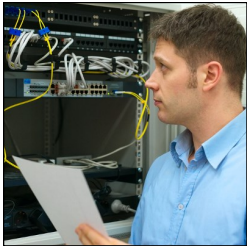
The crazy thing about passwords is that there are multi-factor and biometric technologies that can replace them (like retina and fingerprint scanning). These alternative technologies are easily accessible and can provide a more secure solution. Yet, here we are in 2016 and passwords are still the norm. You're asked to create a new one every time you sign up for anything online. We can do better. Let's move on from passwords.

**Aggressive Promotion From Technology Vendors**

Yeah, we're looking at you Java and Flash. Many "free" applications are free because they get paid by their sponsors to sneak in extra gimmicks like browser toolbars and new antivirus software into the installation. Yahoo and Ask toolbars are the most common. Most of the

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## The Best Way to Manage Your Technology is also the Easiest!



Technology's incredible growth has brought about a need for technicians who are skilled enough to handle everyday maintenance. As time passes, technology grows more complex, and as such it requires more comprehensive maintenance. Eventually, innovators in the IT industry discovered that their services could be improved by preventing technology problems from happening in the first place. Enter: managed IT services.

We'll discuss the differences between traditional break-fix IT, and the managed services model that has changed the industry significantly.

### How Break-Fix IT Works

Some businesses are known to run their technology into the ground. This means that they're using their technology, with all of its imperfections and warning signs, hoping that nothing will go wrong or break down. Companies like this hope to save money by dodging maintenances

unless it's absolutely necessary. Ultimately this approach winds up being more costly. For an analogy, look at the automobile. We all know that it works best when you're taking proper care of it by providing regular oil changes, replacing tires when they're needed, and other preventative maintenance. Yet, some people just don't take good care of their vehicles, and when they break down, it costs them a significant amount of money.

### How Managed Services Work

Unlike break-fix IT, which takes care of problems as they appear, managed services are designed to detect abnormalities and issues before they become full-fledged problems. Doing so allows businesses to save money and time by outsourcing the upkeep and maintenance of their technology to a third party. By avoiding expensive technology problems, organizations can save further. For example, performing server maintenance is much cheaper and more efficient than dealing with an untimely and costly hardware failure in that same server.

### The Benefits

As a busy business owner, one of the most limited assets that you have is time. There's only so much time in the day to manage your technology, and it doesn't help that you're restricted by a budget. Replacing a major piece of hardware can be crippling, especially if it's unprepared for. This is the biggest benefit of taking advantage of managed IT services: preventative maintenance is much more cost-effective and efficient than hoping for the continued functionality of your technology.

Basically, the big difference between break-fix IT and proactive managed IT is the fact that you'll be dealing with fewer technical hiccups due to regular maintenance and management. This leads to more time and more cost savings allowing you to focus on what matters most: running your business.

If your business is sick to death of dealing with constant computer problems...



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## Let's All Move on From These 4 IT Frustrations

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time you can opt out of these so-called bonuses, but if you aren't careful, you'll miss it and be greeted by a new application or browser plugin you weren't bargaining for.

This is reminiscent of Internet Explorer's much hated prompt, "Would you like to make Internet Explorer your default browser?" No IE, just let us open IE in peace so we can download Chrome already! Aggressive promotions like these are super frustrating. Unfortunately, more technology vendors seem to be adding this strategy to their promotional playbook.

### Outdated and Useless Technology Still in Use

Do you know just how easy it is for your

business to go paperless? By digitizing your files, utilizing PDFs and digital signatures, and storing documents in the cloud instead of bulky file cabinets, you can very easily bring your office into the 21st century. Yet, printers and even fax machines are commonplace in many modern offices. For many business owners, hanging on to outdated technology is often a move to save money, but this strategy often backfires because outdated equipment ends up costing them more in the long run.

### Inconvenient Websites

As the world becomes more connected to the Internet, it becomes more dependent upon websites and browsers. For the most part, this move online is one of convenience, but the functionality of some websites (or the lack thereof), can

be a rather maddening experience. Scott Matteson of TechRepublic vents: Constant updates. Plug-in woes. Websites that require you to log in to proceed to view an article but then take you to the home page when you comply. Browsers that don't save credentials no matter how many times you tell them to. Cumbersome site registration with illegible captchas and the requirement to wait for an email to complete setting up your account. (This is getting a better with the opportunity to log in with social media accounts, I'll admit.) The necessity to log your account ID and password somewhere or else use the same one you use everywhere—which is a BIG...



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## Making Sense of How the Internet of Things Applies to Different Industries

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commonly seen connecting to the Internet so that they can be controlled or monitored through a connected smartphone app, regardless of where the user is. Even in various industries, the Internet of Things is a tool that helps keep operations moving forward without a hitch. Take, for instance, these examples of how the IoT has been applied to specific industries:

- **Manufacturing:** Manufacturing plants use IoT devices to not only monitor progress of product assembly, but also for automating process controls, safety features, and security measures. In other words, the IoT devices used by manufacturers are mainly used to optimize the functionality of the plant.
- **Energy management:** Some manufacturers are using IoT devices to

monitor energy-consuming devices, and control these devices to ensure the maximum amount of energy is saved. Many of these devices are either set up to allow for remote control, or for access via a cloud-like interface.

- **Medical and healthcare:** On the medical front, IoT devices are capable of remotely monitoring medical equipment for information like blood pressure, heart rate, and other vitals. There are even pacemakers, insulin pumps, and other medical devices that are capable of connecting to the Internet and can be controlled remotely.
- **Building and home automation:** Some of the great IoT devices in the home automation industry include the aforementioned thermostats, garage doors, security cameras, lighting systems, air conditioning, and any other minor appliances that

can be controlled remotely via a smartphone.

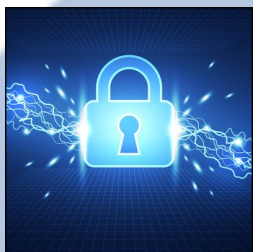
### Security Issues and Discrepancies

With so much connectivity, security is a major issue and something to be considered when using any IoT device. Indeed, IoT devices present a unique challenge in keeping your network as free of them as possible, or at least minimizing your data's risk of being accessed by one of them. Since these devices communicate with each other, if even one of them is compromised, you could be looking at a potential data breach. This is why it's so important to both enforce a Bring Your Own Device (BYOD) policy in the workplace, as well as to manage the permissions and restrictions of devices on your network. If your business is having trouble managing the threat that the Internet of Things...



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## 4 Security Best Practices that Every Employee Needs to Adopt



Security is a hot-button issue for all types of businesses, but cyber security is such a complex

subject that it's difficult to jam-pack its many intricacies into one blog article. Sometimes understanding just a few ways to improve your business's security practices can be a significant benefit for your organization.

Here are four simple best practices that you and your employees can use to keep your organization's infrastructure as secure as possible.

- **Change passwords regularly:** How often do your employees change important credentials? This is an important part of maximizing the security of your user and administrative credentials. Passwords should be changed regularly, and

they should always be complex; use upper and lower-case letters, numbers, and symbols, and make them as long as possible. Granted, long complex passwords can be difficult to remember, so you'll also want to use an enterprise-level password manager to keep them all in check.

- **Keep your software solutions up to date:** Your business has software solutions that are critical to day-to-day operations, but without the proper security patches, you could be running software that's putting your company at risk. You need to ensure that you're using software that's supported by Microsoft and is regularly receiving patches and updates required to optimize security. Celera Networks can do this remotely for you with our remote monitoring and maintenance solution, so reach out to us if this responsibility has grown too burdensome.
- **Use two-factor authentication:** In a

world where passwords just don't cut it anymore, two-factor authentication is a new norm that can dramatically change the way that your organization secures accounts. Two-factor authentication basically adds an additional layer of security to an online account, making it much more difficult for hackers to access information hidden within. Two-factor authentication tactics include, but aren't limited to: biometrics, smartphone integration, location verification, and more.

- **Have preventative measures put in place:** Remember, your ultimate goal should be to prevent virus and malware infections, rather than react to data breaches as they happen. A great way to take preventative steps is to implement powerful security solutions designed with the enterprise in mind...



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## 4 Ways to Avoid Distracted Driving While Still Being Productive With Your Phone



Business owners who spend a lot of time on the road, like during

a commute or on a business trip, understand how difficult it is to use smartphones while driving. Despite the fact that it's illegal in many places, some people refuse to put down their phones and concentrate on the task at hand: driving. Doing so puts not only themselves, but everyone else on the road at risk of an accident, which can lead to expensive insurance payments and vehicle maintenance costs.

In general, it's safe to say that smartphones have been counterproductive to roadway safety. With drivers being constantly bugged by new notifications, be it through email or text message, one has to ask an important question: "Is it worth risking my life to respond to an urgent email while on the road?" The answer is clear; no, you absolutely shouldn't be doing so.

Not convinced? Consider these sobering statistics from the U.S. Department of Transportation:

- At any given daylight moment across America, approximately 660,000 drivers are using cell phones or manipulating electronic devices while driving, a number that has held steady since 2010.
- Ten percent of all drivers 15 to 19 years old involved in fatal crashes were reported as distracted at the time of the crashes. This age group has the largest proportion of drivers who were distracted at the time of the crashes.
- In 2014, 3,179 people were killed, and 431,000 were injured in motor vehicle crashes involving distracted drivers.

### Alternative Solutions to Mobile Devices on the Road

To help you better take advantage of your smartphone, we've outlined a few potential solutions to this problem that continues to plague roadways. Keep in mind that we're not advocating for smartphone use while on the road; we just want to help people stay productive while also keeping themselves as safe as possible.

- **Bluetooth headsets:** If you absolutely need to talk on the phone while driving,

you can make this easier by using a wireless headset that allows you to talk without holding the phone to your ear. Plus, if you're using a Bluetooth headset, you can speak commands into the device to allow for hands-free navigation.

- **Voice recognition technology:** Some devices allow users to take advantage of hands-off technology like voice recognition. This allows them to focus on driving, while commanding the device to perform certain actions, like calling your office or sending a quick text message. You might still be somewhat distracted by your device, but at least your eyes will be on the road.
- **Just don't use your phone:** Again, this returns to the above question; nothing work-related should be worth risking your life over. Keep your phone on silent while you're in the car, with no vibrating or sound allowed. Doing so allows you to keep your...



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We partner with businesses in many different vertical markets throughout the New England area. The Celera team is focused on customer service and we strive to eliminate IT issues before they cause expensive downtime.

Our goal is for our clients to continue to focus on what's most important - their business.

Our dedicated staff is known for going the extra mile and doing what it takes for our clients to be successful with their technology investments.

Your firm's success is our success.

### Tech Fun Fact

The very first Apple logo featured Sir Isaac Newton sitting underneath a tree, with an apple about to hit

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