This Issue:

8 Upgrades to Facebook Messenger that Make it Business Worthy

When Facebook released its Messenger app in 2011, it was primarily designed as a way for users to chat with each other outside of the main Facebook app. Since then, Facebook has added a plethora of new features and upgrades to Messenger...

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http://dti.io/fbmessenger

About Directive

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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Happy Holidays

Why a Major Internet of Things Security Breach is Inevitable

Whether we're ready for it or not, the Internet of Things is coming, and soon. You might see all sorts of connected devices on the market today that you would never think to connect to the Internet, but it's our responsibility to inform you that these new devices could potentially put not just your business infrastructure at risk, but even your own life.

Security experts have long discussed the repercussions that the Internet of Things will have on the world of cyber security. It's been predicted by Gartner that an average of 5.5 million "things" are added to the Internet of Things every day. This could include anything that connects to the Internet, but usually only refers to consumer goods that wouldn't normally have any sort of wireless network connection built into them. By the end of this year, there will be approximately 6.4 billion IoT devices on the market.

The real problem here is that these numbers continue to increase by the day, and if the IoT's growth is any indication, it's not slowing down anytime soon. There were 3.8 billion in 2014, and 5 billion in 2015, so it's not a stretch to suggest that the number of "things" connected to the Internet of Things will exceed 20 billion by the time 2020 runs around. Many researchers believe that the first major IoT data breach will happen sometime within the next few years.

How VoIP Can Enhance Your Company's Budget and Operations
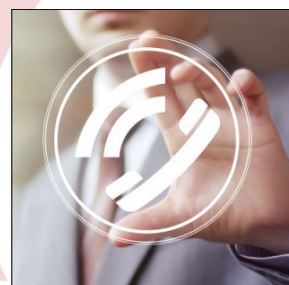
Chances are that you're fed up with your in-house telephone network. It may have once been necessary to communicate with your employees and your clients by using a landline, but the modern office has since moved toward a more digital alternative in the form of Voice over Internet Protocol (VoIP) telephony.

Basically, VoIP uses your organization's Internet connection to transmit your call to the receiver. It's efficient because it provides a service via one that you already pay for, rather than adding an additional cost to your budget. However, VoIP provides several other benefits that can save your business money. Here are two of the best ways that VoIP helps your business's communications become more cost-effective.

VoIP Eliminates an Unnecessary Cost

As we just mentioned, since VoIP uses your business's Internet connection, it helps you

The Importance of Having a Secure File-Sharing Solution Cannot Be Overstated

In the business world, you rely on agile and secure access to critical documents on a number of different devices. However, security can quickly become a problem, especially when your users have multiple devices. Is your file sharing service enough to keep your data safe? Or, if it's not, what are you going to do about it?

It's safe to say that most file-sharing solutions have their roots in the cloud. The cloud allows organizations to collaborate and share documents across devices and operating systems, to create a network that your staff can use to access important information and applications. A cloud solution is often used for hosting productivity suites and email systems, but most important of all is file sharing.

Many cloud solutions also offer applications that are designed for collaboration, which means that your team can create documents and communicate in real-time. Business applications like Google's G-Suite and Microsoft OneDrive for Business can sync your files across your entire device infrastructure, so that all of your employees have access to the most recent version of a specific document. This is helpful if your business has many different people collaborating on the same project.

> **"It's safe to say that most file-sharing solutions have their roots in the cloud. The cloud allows organizations to collaborate and share documents across devices and operating systems..."**

The only question that remains is how secure your cloud needs to be. Since you're storing your data in a cloud-based format online, you run the risk of hackers and user error bringing your business to its knees. Surprisingly, however, most file-sharing systems are relatively secure, and the main threat comes not from external threats, but from inside users. User error is a primary cause for data breaches, as they can accidentally expose files to dangerous circumstances or hand over credentials without realizing it. Therefore, something needs to be done in order to guarantee that your files aren't being exposed to more threats than necessary.

Depending on the type of cloud solution you implement, you can have full control over the user access and security permissions of your file sharing system. A public cloud can provide the basic file storage and sharing services that you desire, but if you want maximum security, you'll want to invest in a private cloud, where your solution is stored on-site. The only problem is that private clouds require extensive management and maintenance that your business might not have time for.

Directive can ease this pain point by offering our cloud management solution. If you want to get the most security out of your file-sharing in the cloud, you'll need expert technicians to monitor and maintain your private cloud server. However, the SMB's IT budget doesn't typically allow for this type of flexibility. Outsourcing this responsibility to Directive makes your job much easier, as you don't have to invest the time and resources into it. To learn more about file-sharing services and cloud computing, reach out to us at 607.433.2200.

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How VoIP Can Enhance Your Company's Budget and Operations

avoid the fees of going through your local telephone provider for all of your telecommunication needs. Plus, most telecommunication providers will try to bundle telephone services with others, which can make it seem like you're paying for services that you don't want or need. With VoIP, you're using an asset that you already have (and need) to cut down on operational expenses.

Granted, in order to guarantee that your VoIP system experiences minimal operational trouble, you need to focus on improving your Internet connection by either working with your Internet service provider or auditing your router's performance. We recommend contacting technology professionals before implementing major changes to your IT infrastructure--especially one such as VoIP.

VoIP is Flexible
When you add new users to your organization's network, if often entails some intensive cabling to ensure that the new user's technology is connected to the in-house network and the Internet. However, as the amount of technology you accrue increases, the amount of space that you have for new workstations and server units decreases. This results in a complex network infrastructure that makes it difficult to effectively optimize operations. This is especially the case if your business is growing.

VoIP makes it much easier to provide new technology without all of the complex cables. Rather than set new telephone cables for each and every new worker that you onboard, all you have to do is make sure that they have a steady Internet connection. This makes it much easier to provide phone systems to your employees. However, you still need to be mindful of bandwidth, as VoIP can put strain on an unprepared network.

Does your business need a reliable communications solution that's capable of improving operations? To learn more about VoIP, reach out to us at 607.433.2200.

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Why a Major Internet of Things Security Breach is Inevitable

(Continued from page 1)

The Risks

At first glance, it might seem like many IoT devices are of little consequence and shouldn't be worried about on a cyber security level. Appliances like blenders and toasters seemingly don't hold much value to hackers. The problem, however, comes not from the devices themselves, but the networks that they're connected to. If a hacker can bypass the security features of a smart device, they can potentially gain access to the network, and other devices connected to it.

Of course, the potential for damage extends far beyond the scope of just your own business. When you consider how computerized cars and physical infrastructure components, like dams and power plants, have become, you might realize that there is the potential for disaster, all thanks to the Internet of Things.

For example, what happens when a hacker disables a car's brakes, or they decide to override a system setting on a dam and flood the surrounding landscape? As the potential for damage increases, so too does the potential for a hacker to grow interested in a target.

Why Vendors Aren't Doing Anything About It

One of the major reasons why vendors are creating devices with security vulnerabilities is perhaps because of the lack of actual regulation and standards put into place to ensure quality of the device. In part, this is due to organizations refusing to spend money on devices that aren't guaranteed to turn a profit. Thus, popular devices from different markets--not just consumer electronics, but also appliances and other industries--may wind up being manufactured with major security flaws that can be exploited by hackers.

Then there's the problem with applying patches or updates to these IoT devices. When you think about it, there are two major ways to resolve a problem with your device; either download the patch, or replace it entirely. Considering how many of these IoT devices are both ex-

pensive and difficult to replace, the latter isn't exactly feasible. Imagine purchasing a smart car with a security vulnerability that cannot be patched. You'd have to purchase a new one in order to keep yourself safe. That's not just unreasonable--it's also economically challenging, as this new technology is still quite expensive, and remains as such until demand or competition increases.

What You Can Do

Due to the Internet of Things' incredible reach, it might seem like an intimidating notion to protect your business from the countless threats that could reach your infrastructure. You need to implement enterprise-level security solutions that can keep unapproved devices from connecting to your Internet connection, and you should always be conscious of how and where your data is shared outside of the office environment. Therefore, it becomes necessary to implement...

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3 Ways to Give Your IT Department the Boost They Need
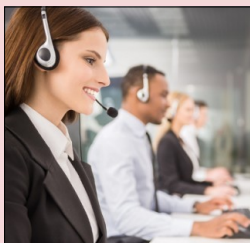
If you have an internal IT department, chances are that they're functioning in a similar manner to a help desk team. They provide technology support for your less-adept employees, or those who encounter errors that they're unable to resolve. Chances are that your IT department could use a hand every now and then, so here are a few ways you can lighten their help desk workload to free up time for more efficient purposes.

Invest in Employee Education

Have you ever encountered the problem of employees not knowing how to use a new solution so they end up asking IT too many questions? This can eat up a significant amount of time and resources that you can't afford to waste. Yet, you can't let your team handle their own IT

issues; not without first educating them about how to best approach the problem.

One way that you can address this problem is by educating your employees on basic best practices, including email inbox management, network security, and so on. The more time that you invest in training your employees on how to be autonomous--without the help of IT--the more time that you can save in the long run. Plus, this kind of professional development is beneficial for your employees, too.

Set Up A Documentation Center

Have you ever resolved a problem that's been asked multiple times, to the point where it just gets frustrating and time-consuming to answer the same question over and over again? This is often the case with IT support. In times like this, it would be helpful if you had a center where you can direct users who might

be having trouble with basic issues that are frequently encountered. This is what we call a documentation center. If you have one, your techs can simply send a link to the file containing instructions on how to fix a basic problem.

Outsource IT Support

One of the easiest ways that your business can help your help desk is by outsourcing some responsibilities to a managed service provider. In most cases, your organization will have to focus on one of two responsibilities. You will either focus on management and maintenance of your IT, like applying patches and security updates, or you will focus on keeping operations moving forward. Yet, you'll probably only have time for one of these, so you'll be presented with a dilemma that's not easy to resolve...

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Collecting Data is Easy, Using it to Benefit Your Business is the Challenge

Big data is a trend that's gaining traction in the business environment. By taking a close look at the data that you collect, and identifying trends, you can potentially predict how your business can perform, and how your clients will respond to your products or services. Yet, there are two major questions that you need to ask: how are you going to use this data, and is the data that you've collected specifically to achieve that goal?

Big data, according to Gartner's IT glossary, is "high-volume, high-velocity and/or high-variety information assets that demand cost-effective, innovative forms of information processing that enable enhanced insight, decision making, and process automation." In other words, businesses collect this data, and then use tools to analyze it to find...

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Directive's Employee Highlight: Chris Howard

Chris Howard always knew he wanted to write. Raised in Oxford, NY, and attending Bainbridge-Guilford Central School District from kindergarten all the way through graduating high school, Chris Howard went on to graduate as part of the SUNY New Paltz Class of 2009 with a bachelor's degree in English.

Chris joined Directive early in 2014 as part of the content marketing team. As a valued member of the SEO team here at Directive, he can be found helping our SEO clients find the right words to get Google's attention, allowing him to continue his wordcraft in the workplace.

His love of writing has continued, as he usually spends his non-working hours still searching for just the right words. He enjoys writing speculative screenplays--pay attention, Hollywood--and plans to increase his comedic repertoire by taking some classes. However, the classes might not be necessary considering one of his speculative scripts, written for the NBC hit comedy Parks and Recreation, earned him a place as a semi-finalist in a screenplay competition.

When he isn't writing, Chris likes sports, watching football, basketball, and soccer (occasionally kicking around one himself) as well as reading the latest posts from the New York Times, whatever he finds on his Twitter, and anything to be found on avclub.com. His podcast list is usually filled with comedy, politics, sports, and film media topics, and he loves to spoil his two "goofy" pets, husky/redtick hound mix Bixby and orange shorthair cat Jo. Someday, Chris would like to travel Europe, having only travelled to Canada so far.

Since his very first few days here at Directive, which featured a massive snowstorm that reduced the company ranks by half as well as a trip to the local Chinese buffet, Chris has been learning and laughing alongside us, his lucky co-workers. We are very glad that he enjoys it here, as we certainly enjoy having him! Thank you, Chris Howard, for being a great member of our team!
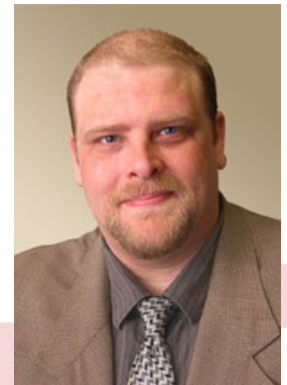
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Solutions Integrator
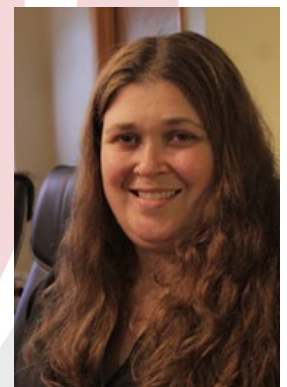
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