

WHITEPAPER

THE INTERNET OF THINGS

WHY THE INTERNET OF THINGS IS THE NEXT BIG THING FOR IT

The IoT is transforming the IT landscape, presenting a largely untapped market for MSPs willing to invest in technology to embrace this exploding trend.

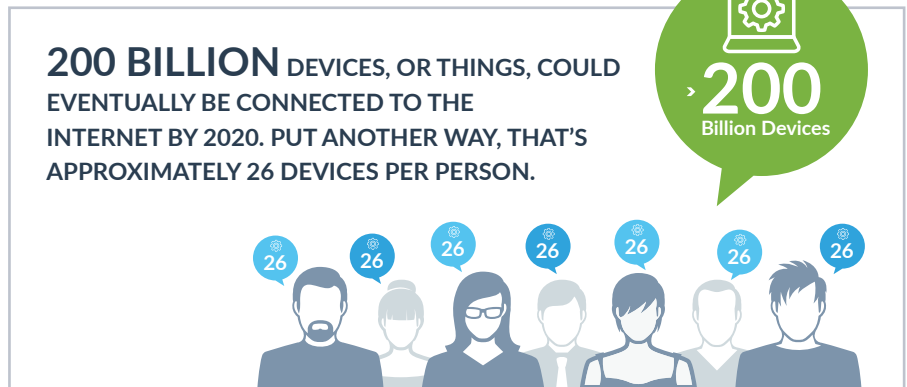



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Within the next year, IoT could represent a significant volume of *new potential business*. Those that ignore it could soon find themselves at a competitive disadvantage.

The Internet of Things (IoT) is the latest major trend in IT. Beyond laptops, desktops, tablets, phones, servers and routers, it consists of sensors and chips embedded into just about every imaginable device. According to IT analyst firm IDC and Intel, 200 billion devices, or things, could eventually be connected to the internet by 2020. Put another way, that's approximately 26 devices per person.¹ That's a lot of additional points to manage, and this may be a conservative estimate.



To date, MSPs have not been impacted much by the IoT. Most of their existing business continues to originate from traditional markets. But that is about to change. Within the next year, IoT could represent a significant volume of new potential business. Those that ignore it could soon find themselves at a competitive disadvantage. A wiser approach would be to find a customer or two with IoT-related needs. Gain familiarity with this emerging market while maintaining and expanding current revenue streams. When the predicted IoT boom materializes, those MSPs that make the time NOW to understand IoT will be in a strong position to capitalize on what is likely to be the dominant trend in IT in the next decade.

UNDERSTANDING IoT

The internet revolution of the 1990s suddenly connected tens of millions of users to the network. Since then, connectivity has enveloped much of the world. About 1.5 billion smartphones, tablets, desktops, and laptops that connect people to the internet are sold every year. The IoT is about to expand that to the tens and perhaps to the hundreds of billions.

Market research into IoT published by MarketsandMarkets foresees an IoT analytics market that will grow from \$7.19 billion in revenue in 2017 to \$27.78 billion by 2022. That's a Compound Annual Growth Rate (CAGR) of 31% – better than just about anything in the technology sector over that period.²

But what is the IoT? IoT is a combination of sensors, networking, and analytics that can be combined to create greater production efficiency, better quality of life, and a higher level of automation. The consumer sector is the most visible face of the IoT. Wearable devices, for example, provide fitness and health data to health monitoring software applications. Another often-cited example is the refrigerator that sends alerts when contents need to be replenished or replaced.



¹ A Guide to the Internet of Things: How Billions of Online Objects are Making the Web Wiser; IDC, Intel; <https://www.intel.com/content/dam/www/public/us/en/images/iot/guide-to-iot-infographic.png>

² IoT Analytics Market by Application (Energy Management, Predictive Maintenance & Asset Management, Inventory Management, Remote Monitoring), Component, Analytics Type, Deployment, Organization Size, & Vertical - Global Forecast to 2022; <https://www.marketsandmarkets.com/Market-Reports/iot-analytics-market-52329619.html>

IoT IN BUSINESS



These examples, however, represent only the consumer fringe of a far greater phenomenon. The real opportunities for IoT's benefits lie in the business marketplace and the public sector.

Take the case of electric utilities. They are rolling out smart meters that provide power grid operators with huge quantities of information. This, in turn, is being used to enable better insight into electrical usage and grid bottlenecks. The overall concept is to have a huge number of sensors and data inputs from every house, business, substation, power station, and across the entire distribution network.

As technology has evolved, the number of sensors added to industrial equipment and components has mushroomed. Once there were only a few dozen sensors inside a gas turbine, wind turbine, or solar power array. Nowadays, there can be thousands, and the number keeps rising. Multiple sensors are being added to every conceivable component, machine, and auxiliary system.



So great will be the volume of data, that machine learning and artificial intelligence (AI) will have to be deployed in conjunction with big data analytics to isolate trends, trigger alerts, and offer greater insight. Automation, real-time synchronization, and analysis of IoT data holds the promise of convenience, precise response to events, and far better resource allocation. Utilities will benefit via real-time prediction of demand, optimization of the power supply, and the elimination of inefficiencies at the machinery, plant, and utility system levels. Further, the IoT could considerably reduce maintenance requirements by accurately assessing the usable lifetime of equipment. This, in turn, will create a more reliable grid and support economic development.



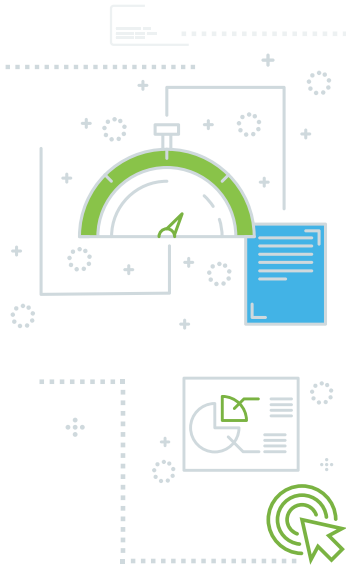
But utilities represent only one of many fields that will be transformed by the IoT. Just as the smartphone has revolutionized online purchasing (Amazon, eBay), taxi services (Uber), and booking holiday homes (Airbnb), the commercial and public sectors will experience vast changes in the coming years. Farmers will use sensors to monitor crop and livestock conditions and to greatly increase yield, profitability, and efficiency. Transportation services will benefit from real-time updates on exact position, time to destination, and vehicle condition, to name a few. Retail establishments will be able to monitor every inch of the supply chain, operate leaner and more accurate inventories, and respond nimbly to sudden slumps or surges in demand. Every sector will experience upheaval as the IoT gains momentum. And just as occurred during the internet revolution, some will anticipate the trend and prepare well for it. Others will be caught napping and fall behind.

MSPs AND THE IoT



Clearly, the IoT represents a huge potential market for MSPs. But it isn't an immediate market. Most MSPs earn approximately 60 percent of their income from recurring services. Another 20 percent comes from product resell, and the rest is made up of one-off business. Initially, the IoT is likely to become little more than a minor portion of the latter category.

The shortsighted view, then, would be to ignore it due to the expectation of a poor immediate return on investment (ROI). But a longer-term view is required. While IoT preparation and investment may not show up well in 2018 profitability reports, by 2019 or 2020 at the latest, its value will be obvious.



Smart organizations, therefore, are advised to take heed of this developing trend. That doesn't mean dropping ongoing successful actions or ignoring profitable revenue streams. The smarter course would be to continue to work on core business while gradually introducing IoT into the MSP repertoire.

Just as trends such as the cloud began slowly, the IoT may not initially appear to be an area worthy of serious investment. But the trajectory of the cloud shifted suddenly upward around 2012. Those MSPs that failed to grasp its potential found themselves lagging behind more nimble rivals. The IoT will chart a similar course. In fact, many expect it to greatly exceed the adoption curve of the cloud.

IT IS RECOMMENDED, THEN, THAT MSPs PAY ATTENTION TO THE IoT PHENOMENON REGARDLESS OF IMMEDIATE ROI. FIND A CUSTOMER OR TWO WITH IoT NEEDS. BECOME ACCUSTOMED TO THIS EMERGING MARKET AND GAIN EXPERTISE IN ITS VARIOUS NUANCES. ALLOW STAFF TO BECOME FAMILIAR WITH HOW TO PRICE SERVICES AND HOW TO OPERATE EFFICIENTLY AND PROFITABLY IN THIS NEW MARKET.

As IoT traffic grows, this experience can be leveraged to offer IoT-based services on a wider scale. Eventually, it is likely to evolve into a core business with a healthy volume of recurring services. But that will happen only for those that begin their preparations now.

IoT AND PSAs



While IoT preparation and investment may not show up well in 2018 profitability reports, **by 2019 or 2020 at the latest, its value will be obvious.**

The IoT represents such a dramatic shift that it is going to expose the deficiencies of aging systems. MSPs are likely to notice this initially in their professional services automation (PSA) solution suites, which are already struggling to cope with cloud-based IT. Many PSAs are approaching their end of life. These legacy products may have some basic software-as-a-service (SaaS) capabilities, but they were not built for the cloud as it has evolved today. Poor performance and aging interfaces make them difficult to operate.

OLDER PSAs CAN'T PROVIDE THE LEVEL OF FUNCTIONALITY DEMANDED BY MODERN CLOUD-BASED BUSINESSES. THE IoT IS DESTINED TO COMPLETELY OVERWHELM THEM. MSPs, THEREFORE, ARE ADVISED TO INVEST IN NEXT-GENERATION PSAs TO SATISFY THEIR PROJECT MANAGEMENT, SERVICE DESK, TIME TRACKING, INVOICING, RESOURCE PLANNING, BUSINESS INTELLIGENCE, CUSTOMER RELATIONSHIP MANAGEMENT (CRM), AND COLLABORATION NEEDS.

Next-generation PSAs are built from the ground up for the cloud. They have the flexibility, scalability, and speed needed to cope with the IoT. MSPs can harness next-generation PSAs to increase revenue through the smooth introduction of new IoT-enabled services.

Take the case of project management, a discipline that will become even more vital in the coming years. MSPs must be ready for the flood of sensors, devices, and endpoints soon to come their way. Next-generation PSAs offer project management features such as being able to launch IoT projects effortlessly and operate effectively regardless of the volume of sensors or devices involved. Staff will be able to view real-time project status reports and take advantage of analytics engines that can divine insight from mountains of data. Such capabilities will prove invaluable when it comes to forecasting the future infrastructure needs of clients.

IoT AND PSAs



Next-generation PSAs include sufficient asset management functionality to track this new volume of devices and sensors. But they must be supported by tight integration with remote monitoring and management (RMM) tools for rapid discovery of assets and IP addresses. Legacy PSAs performed an adequate job of discovering computers and routers on traditional networks. They don't cope well in cloud environments. And with tens of billions of sensors out there to be discovered, MSPs need tools that will be able to detect them rapidly and monitor them efficiently. RMM tightly integrated with a next-generation PSA means every sensor and device discovered will be automatically accessible in a PSA.

Another vital area of integration is the service desk. Monitoring of complex IoT networks must include the ability to tie assets to specific tickets. Issues detected in massively distributed networks must be analyzed in real time. Any problems found must lead to automatic ticket issuance. The flood of IoT traffic can be effectively dealt with only by tightly coupling RMM and PSA ticketing systems within a Service Desk to track and correlate issues automatically.



CONCLUSION



The IoT is coming – fast. Its value may not be immediately apparent to management. But like a flash flood in mountainous terrain, a torrent of IoT sensors is going to transform the IT landscape. MSPs are advised to prepare themselves for what is likely to be a flood of new business.

Begin with small steps at first. Take on one or two minor projects to get a feel for this new type of service. Gain familiarity and expertise in an area that shortsighted competitors are sure to neglect. Don't worry too much about the lack of immediate revenue. Convince others about the long-term inevitability of this trend. Those that rise to the challenge will benefit by being on the forefront of the next great technology wave.





ABOUT KASEYA

Kaseya is the leading provider of complete IT management solutions for managed service providers (MSPs) and mid-sized enterprises. Through its open platform and customer-centric approach, Kaseya delivers best in breed technologies that allow organizations to efficiently manage and secure IT. Offered both on-premise and in the cloud, Kaseya solutions empower businesses to command all of IT centrally, easily manage remote and distributed environments, and automate across IT management functions. Kaseya solutions manage over 10 million endpoints worldwide. Headquartered in Dublin, Ireland, Kaseya is privately held with a presence in over 20 countries. To learn more, visit www.kaseya.com.

