



Today, manufacturers understand that connecting their products through the Internet of Things (IoT) is essential to minimizing downtime, reducing costs, and providing better service offerings for their customers. Every day, service teams face the challenge of ensuring maximum equipment availability at the same time as keeping the cost of materials and labor to a minimum — a demand that existing methods struggle to achieve.

Remote monitoring enables a proactive maintenance approach by providing visibility and insight to equipment performance across the install base. The service team can either resolve the issue or schedule the maintenance event, including the resources needed in a fraction of the time it previously took. This not only increases equipment availability, but also means unplanned downtime can be reduced and often avoided.

The IoT presents the largest opportunity for aftermarket service providers, but many have questions about the best place to get started. Gaining the ability to locate and track equipment, as well as gain insight into condition and performance, is key. The IoT is affecting every service organization and is already making the service market more competitive.

Early adopters are realizing proven returns with remote monitoring, an IoT-enhanced service that can be quickly implemented and monetized. These companies, in industries such as industrial equipment, medical devices, electronics and high tech, have delivered new value and increased customer engagement through connected product monitoring.

For example, Varian Medical sells medical devices used to treat cancer. Varian's remote monitoring service successes — 50% reduction in mean time to repair — have decreased services costs while growing repeat customer revenue from Varian's software service contracts.¹

Wins like these are getting a lot of attention, and demand is rising. It's imperative that organizations with service programs understand the impact that remote monitoring is making, and that providers looking to improve service cost and revenue metrics don't overlook this low-barrier opportunity.

This guide is designed to help you discover more about why remote monitoring is your best move into gaining *more* business and *new* business from connected-product customers.



Gartner anticipates
that the IoT's explosive
growth will see **20.8 billion** connected devices
deployed by 2020.²

^{2.} Deloitte University Press, "Tech Trends 2017: The Kinetic Enterprise"



^{1.} PTC, "<u>Varian Medial Systems Customer Story</u>."

Remote monitoring delivers significant bottom-line business benefits.

IoT connectivity enables providers to "see" products and their operating state from any location, so that technicians can:





Remotely assess a problem before the truck rolls.



Correct problems remotely, eliminating the need for a site visit.



Decrease product downtime.



Reduce onsite resolution time through remote diagnostics when a service person is en route to your product.



Increase the probability that the issue will be remedied upon a single visit, reducing repeat trips by understanding the root cause of the problem.

2

Remote monitoring enables service-business innovation and delivers top-line growth.



Manufacturers strive to earn 30% or more of their revenue from service, according to IDC.³ Remote monitoring can help to build that revenue.



PREMIUM SERVICE

Gerber Technologies offered GERBERconnect to customers of select automated cutting machines for remote product monitoring and predictive maintenance. This new revenue stream is targeted to engage more than 40,000 products.⁴



RELIABLE REVENUE STREAMS

Heidelberg has transformed its industry-leading products, organization, and business model into smart, connected printing press centers. By doing so, it has revolutionized its processes around smart, connected customer service and gained high customer engagement with new service offerings.⁵



DECREASED DOWNTIME, INCREASED SALES

Elekta analyzes machine information for increased uptime of its cancer-fighting radiation therapy tools, predicts the products' end of life, and sells parts or new machines proactively to minimize end-user downtime and enhance customer service.⁶

- 3. PTC, "Service Transformation: Evolving Your Service Business in the Era of Internet of Things," 2016.
- 4. PTC. "Providing Proactive Support with Intelligent Smart Services." 2015.
- 5. PTC, "Heidelberg Pioneers the Smart, Connected Printing Press," 2016
- 6. PTC. "Maximizing Clinical Availability and Performance with System Connectivity." 2015.

3

Remote monitoring is a proven first step into IoT for product providers.

In a variety of industries, you can already see connected-product companies succeeding with IoT via remote monitoring. Companies like Varian Medical and Gerber Technologies are only a few of many that have started their IoT transformation journey with remote monitoring capabilities.



IOT EVOLUTION

Diebold started with remote monitoring of its equipment to diagnose ATM problems at the time of failure, correcting some without sending a technician. With documented success in resolving 17% of service issues remotely, reducing average time to repair by 83%, and decreasing ATM downtime by 15%, Diebold plans to increase its effectiveness by expanding into predictive maintenance next.⁷



PERFORMANCE PROGNOSIS

Radiation-treatment provider Elekta monitors its machines to resolve 20% of service requests remotely. Elekta automatically collects machine data, allowing it to identify potential problems, notify doctors, and resolve issues before they shut down a machine.⁸



FUTURE FOCUSED

3D Systems is enabling intelligent monitoring and remote service and maintenance of its 3D printers to encourage greater manufacturer adoption.⁹ Maximized printer availability and productivity give users a business advantage that 3D Systems expects will drive a broader embrace of its technology.

^{9. 3}D Systems, "3D Systems Chooses ThingWorx Platform from PTC to Enable Smart, Connected 3D Printers," May 22, 2017.



^{7.} PTC, "Resolving Issues and Reducing Downtime," 2017

^{8.} PTC, "Maximizing Clinical Availability and Performance with System Connectivity," 2015.



Remote monitoring delivers the ROI needed to justify the investment.

The ROI victories that early adopters have achieved can assure you that your remote monitoring efforts will be rewarded.



RIGHT THE FIRST TIME

McKinley Elevator Corp. beat the industry's average first-time fix rate of 60%, achieving 88% instead. It expects to reach the mid-90% range.¹⁰



MONEY MAKERS

Lincoln Electric proactively delivers necessary parts to service technicians, decreasing service costs by \$1.2 million and increasing parts revenue by \$2 million.¹¹



SHARING THE SAVINGS

Varian Medical IoT-enabled systems are now deployed in more than 1,500 treatment centers, reducing technician visits by 42% and saving medical facilities \$2,000 per on-site repair avoided.¹²

^{12.} PTC, "Varian Medial Systems Customer Story."





TO. PTC, <u>Mickinley Elevator Case Study</u>

^{11.} PTC, "Service Transformation: Evolving Your Service Business in the Era of Internet of Things," 2016.



Control Customer Experience in Your Service Business

As the first step in IoT-driven service innovation, connected-product remote monitoring can make your company more competitive and deliver rapid returns, including cost savings and new revenue models.

IoT-enabled communication among OEMs, their customers, and their products elevates service offerings, provides competitive differentiation, and supports longer, more collaborative customer experiences.

Find out how your company can quickly capture these benefits, gain new revenue, and enhance customer relationships.

Contact Us

© 2017, PTC Inc. All rights reserved. Information described herein is furnished for informational use only, is subject to change without notice, and should not be taken as a guarantee, commitment, condition or offer by PTC. PTC, the PTC logo, Product & Service Advantage, Creo, Elements/Direct, Windchill, Mathcad, Arbortext, PTC Integrity, Servigistics, ThingWorx, ProductCloud and all other PTC product names and logos are trademarks or registered trademarks of PTC and/or its subsidiaries in the United States and other countries. All other product or company names are property of their respective owners.

