

EVOLUTION OF SMART SERVICE: CONNECTED TO THE FUTURE OF RESOLUTION

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Report Highlights

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More than half of all serviceable equipment for the Best-in-Class is currently connected for the purpose of maintenance, tracking, service, and asset management

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On average, 40% of serviceable equipment in the field is connected to networks and / or the public internet, up from 35% in 2013

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The Best-in-Class are 2.5 times more likely to dispatch a service technician based on remote diagnostics compared to Laggards

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The Best-in-Class plan to increase the number of dispatches initiated by remote data by 9.3% in the next 12 months

This research report will further explore the continued emergence of the Internet of Things (IoT) and remote monitoring capabilities as they impact service execution. The wealth of data enabled by IoT is leading top performing organizations to find new ways of resolving service needs.

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Connecting to customers through the equipment and machines installed on site is an untapped opportunity for the service organization to drive excellence and outcomes.

Definitions:

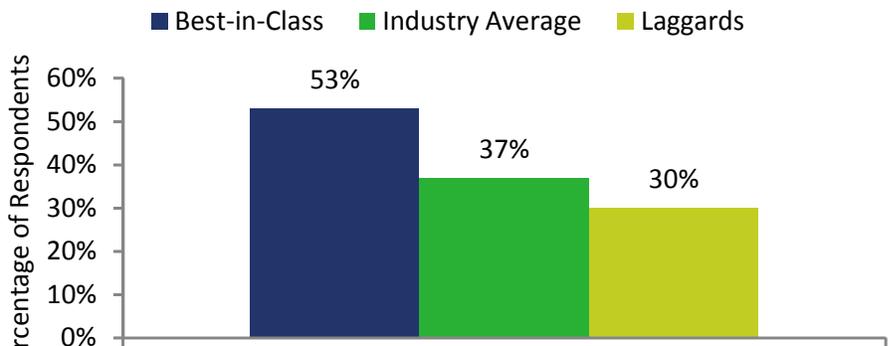
The Internet of Things (IoT) refers to an environment where nearly every object, device, and consumer good is connected to networks and / or the public Internet. These “things” or smart objects can be individually identified, tracked, and managed, and can be connected to networks through a variety of methods (WiFi, NFC, RFID, etc.). In the Internet of Things enabled business, everything is connected, creating new capabilities and increased data awareness.

Service excellence has evolved over the years. No longer is excellence defined as attainment of an on-time appointment or closed work order. Customers expect that service will go well beyond the break / fix dynamic to resolve issues in advance of a failure. Connecting to customers through the equipment and machines installed on site is an untapped opportunity for the service organization to drive excellence and outcomes. The ability to use remote diagnostics and performance insights to deliver resolution, improve customer interactions, and increase revenue opportunities is becoming a Best-in-Class differentiator.

Drive Connection through the Internet of Things

The Internet of Things (IoT) is a concept that has been gaining steam in the manufacturing and service world recently. While a connection to machines, equipment, and customers is nothing new to OEMs and service organizations, verifiable evidence of its validity, value, and implementation is growing.

Figure 1: Connect to Better Service



Currently, what percentage of serviceable equipment in the field (FIXED equipment) do you connect with remotely (machine is connected and collecting or reporting data autonomously) for purposes of asset management, tracking, service, and maintenance?

n = 219

Source: Aberdeen Group, March 2015

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Machine to machine (M2M) connectivity has also transformed the discussion of turning smarter machines into improved tools for enhanced service resolution (Figure 1). The desire to know, in advance, how a machine is or isn't performing optimally is key to getting ahead of a problem. Aberdeen's *Field Service 2014: Access to the Right Information Empowers a Results-Driven Workforce* report (January 2014), highlighted that a top strategic action for the top performers is a move to implement predictive / prescriptive analytics to enable proactive service. On average, 40% of serviceable equipment is connected to networks and / or the public Internet, up from 35% in 2013 as reported in [previous IoT research](#). As seen in Figure 1, this increase in connectivity is even more prevalent in the Best-in-Class, who have begun to tap into the wealth of data that comes from machines every second.

The true value of the Internet of Things is how this increased data flow can create better resolution rates, insight into customer needs, and improved asset productivity. All three of these areas have a direct impact on the relationship between the service organization and the customer: which should be the goal of any for-profit organization.

Real-Time Insight to the Rescue of Service

The Best-in-Class are 48% more likely than the Industry Average to dispatch service techs based on automated remote data (Figure 2). This ability to know when performance is lagging, or a future failure is forthcoming, allows the Best-in-Class to be more proactive in service delivery and execution. The evolution from reactive to proactive to predictive service is the goal of Best-in-Class service organizations. This doesn't happen all at once, as organizations may have some processes or geographies that must remain reactive by their nature. But as customer expectations continue to rise, organizations must leverage this

Definitions:

M2M refers to machine to machine interactions from unmanned devices (e.g., HVAC and manufacturing systems, fleet monitoring, etc.) such as automated data streaming, alert triggering, and more.

- ➔ [Read the full report, "Field Service 2014: Access to the Right Information Empowers a Results-Driven Workforce"](#)
- ➔ [Related Research "Smart Machines Lead to Smarter Service: Remote Intelligence Drives Profitable Internet of Things"](#)

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Remote data, which can track performance, failure reasons, and potential fixes, provides service technicians with the answers to solve customer problems faster.

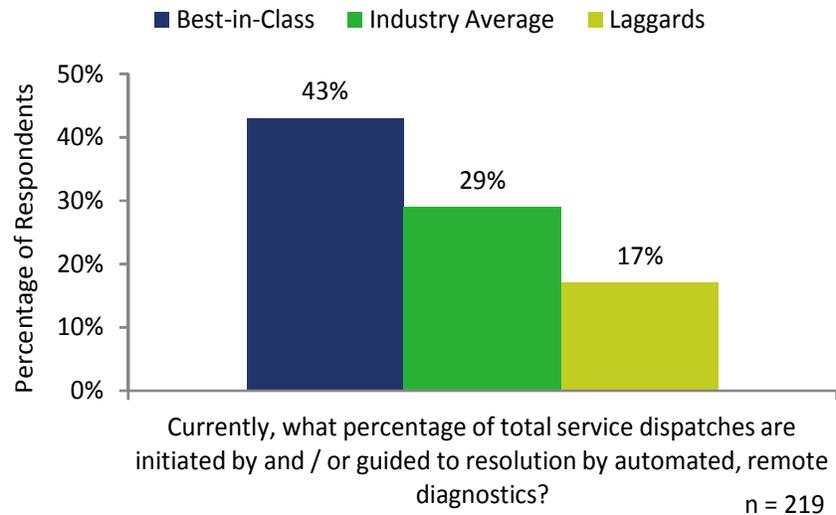
The State of Service Management
2015 Best-in-Class Defined

In January and February 2015, Aberdeen surveyed 219 end-user service and manufacturing organizations to understand the key trends in the service market. The performance metrics used to define the Best-in-Class (top 20%), Industry Average (middle 50%), and Laggards (bottom 20%) among these organizations are:

- 90% SLA Compliance Rate, vs. 80% among Industry Average & 63% among Laggards
- 89% Customer Retention Rate, vs. 84% among Industry Average & 64% among Laggards
- 14.4% average year-over-year improvement in workforce productivity (average calls completed daily), vs. 4.1% among Industry Average & 2.6% among Laggards

level of insight to get to customers and fix problems before equipment fails.

Figure 2: Automated Dispatch of Service



Source: Aberdeen Group, March 2015

The key here is resolution. Remote data, which can track performance, failure reasons, and potential fixes, provides service technicians with the answers to solve customer problems faster. This also allows technicians who may not be true experts on a particular piece of equipment to reach resolution, as opposed to needing to send out a different tech at a later date or spend time on the phone with a remote expert; both of which would cost the customer productivity.

Building the Future of Smarter Field Service

The future of remote connectivity is quite promising. However, the value is not in creating a world of machines communicating with each other for the purpose of more data. The significance of remote monitoring intelligence is in improved resolution. The Best-in-Class plan on using insight into machine performance,

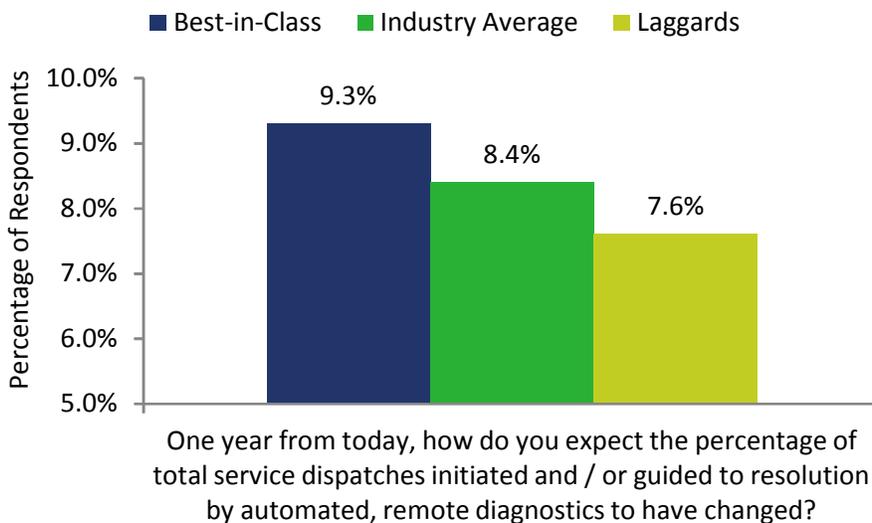
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and potential failure, to proactively service equipment in the field.

The Best-in-Class aren't planning on stopping with their current usage of remote diagnostics for the purpose of service dispatches, either. In fact, they are expecting to increase the number of dispatches that are aided by remote diagnostics in 2016 (Figure 3). Even though predictions for 5, 10, or 20 years out are sheer speculation, this trend doesn't seem to be slowing down.

➔ [Read the full report, "State of Service Management 2015: Connect with Your Customers"](#)

Figure 3: Enable Better Response with the Internet of Things



n = 219

Source: Aberdeen Group, March 2015

Maximize the Value of Remote Connectivity

Connected machines and devices provide a wealth of data. But too often, this data is simply stored away just in case something in the future fails. This real-time asset data should be used to build a profile of the customer and future service needs. The value of remote service extends beyond technology innovation

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to impact the customer, the machines, the manufacturer, and the front-line service team:

- **Customer Impact:** The ability to understand how, when, and why customers use equipment and assets opens up a world of insight for the service organization. Once a product or piece of equipment is shipped and installed on a customer site, the service organization loses sight of that asset until there is a failure. With connected devices, an image of the customer can be created, which allows the service organization to build services around a particular set of needs. The empowered customer expects not only better service, but also better partnerships with vendors. Connected service creates this link.
- **Machine Impact:** Simply, smarter machines lead to more reliable equipment. And if there is a failure, the problem can be more accurately diagnosed and fixed faster. This added reliability allows for longer life of machines and less costs associated with maintenance. As more machines talk to other machines and other people, the capability to proactively diagnose degradation or schedule a service event to avoid downtime is greatly enhanced.
- **OEM Impact:** The future of manufacturing revolves around three concepts, as discussed in previous Aberdeen research on [*The Internet of Things: Connecting the Enterprise and the Customer*](#) (October 2014) – better design for manufacturability, smart products, and serviceability. Increased insight into machine and equipment performance sets the stage for the next round of innovations in product development. Too often, future products are not considered a part of service. But

→ [Related Research](#)
"The Internet of Things: Connecting the Enterprise and the Customer"

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continuous improvement goals for the manufacturer depend on the capture, communication, and execution of data from the field and machines in order to improve.

Manufacturers don't have the time or the money to have failed projects and, thus, must utilize the insight enabled by IoT to excel well into the future.

➔ **Technician-Level Impact:** Technicians are the experts in the field. However, equipment and machines continue to get more and more complex as seen in recent [State of Service 2015 research](#). In order to ensure that the front-line service has the insight, information, parts, and skills to solve complex problems, these technicians must be connected to the right answers. Connected and smart machines provide the real-time data needed for technicians to be able to quickly diagnose a problem and uncover the solution. Faster service isn't only about moving on to the next job; a technician who can quickly and efficiently respond to a customer need becomes a true partner in the customer's success.

The Importance of the Internet of Things is in the Outcome

The value of the Internet of Things and remote connectivity is the intelligence that can be gleaned to better understand the needs of the customer – past, current, and future. As the connected world continues to evolve, the importance of what we do with this data will become a larger challenge. Service and improved resolution of customer issues creates the long-term business case for further investment in smarter machines and connected devices.

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For more information on this or other research topics, please visit www.aberdeen.com.

Related Research

[State of Service Management 2015: Connect with Your Customers](#); March 2015

[Service Performance Management: Smarter Data, Better Decisions](#); January 2015

[Emerging Workforce in the Field: Tech-Savvy to Technician](#); December 2014

[Service Analytics: Insight into Field Performance](#); December 2014

[The Internet of Things: Connecting the Enterprise and the Customer](#); October 2014

[Smart Machines Lead to Smarter Service: Remote Intelligence Drives Profitable Internet of Things](#); August 2013

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