The 2024 Field Service Benchmark Report

The race is on for field service organizations to bridge the skills gap, meet customer demands, tame complex machinery, and ride the tech wave — all at the same time.

Dive in to understand how your organization ranks compared to its peers; see how top-performing companies used data, AI, and the Shift Left Method to adapt to the changing times; and build a service team equipped for the present and future.

EBOOK

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Part I:

Introduction

Field service is at a turning point.

Service leaders face an accelerating workforce brain drain and heightening customer service demands. And it's all happening alongside the rollout of increasingly complex machinery and rapidly changing technology offerings, such as artificial intelligence.

Today's biggest workforce challenges are linked to larger market forces:

Organizations have felt the retirement wave especially hard in the last year.

- Globally, 77% of employers reported difficulty finding the skilled talent they need to staff their organizations.[1]
- By 2031, more than one-quarter of the labor force will be 55 or older.[2]
  - The field service industry faces a more significant challenge: in North America, 46% of field techs are over 50 years old.[3]
  - To boost performance, companies must understand every facet of their organization. That information exists if you look closely—it's hidden in the data. But it's difficult to find meaning within information scattered throughout disparate sources.
    - Over 25% of service leaders reported that "pulling and analyzing data to understand organizational performance" was the most difficult challenge they faced in 2023.[4]
    - Only 7% of contact centers that offer multiple service channels can seamlessly transition customers between channels by providing data, history, and context to the next agent or system.[5]

Shift Your Organization Forward:

To move towards best-in-class performance, you must first understand the strengths and weaknesses of your business on a deeper level. Here's the most effective way to use this report as a guide:

1. **See how your organization compares to industry benchmarks for critical service KPIs.**
2. **Pay extra attention to areas that most organizations overlook, such as understanding the difference between First Time Fix Rates and successful case resolution.**
3. **Dig deeper into lower-performing employees' impact on service outcomes.**
4. **Learn how to measure performance accurately—and use findings to align with business goals.**
5. **Use that data to drive measurable improvements.**

And best of all, **you can start wherever you are right now.**

Key Findings

In our analysis of this year's data, we learned:

○ Top-performing organizations are pulling further ahead of their lower-performing peers, mainly due to a smaller workforce skills gap. Best-in-class organizations have:

- Higher First Time Fix Rates across the top and bottom-performing employees.
- Lower service costs compared to industry averages and only a smaller cost difference between top and bottom performers.
- More time (in days) between visits, indicating fewer visits for repair and maintenance issues.

Here's a further breakdown of cost distributions:

○ **Top-performing organizations** have **more equality in service costs** across teams.

- On average, bottom performers cost **34% more** than the highest performers at top-ranking service organizations.

○ The **lowest-performing organizations** have **the most expensive workforce gap.**

- Here, an organization's lowest-performing employees can cost **80% more** than the top-performing employees. It's typically even higher in the bottom range of this group.

If everyone had the knowledge and skills to perform like the top 20% of the workforce, **service costs would be reduced by as much as 22%**. And it all begins with leveraging the tools at your disposal, starting with AI and your existing service data.

○ Leading organizations take their future seriously: 85% of orgs are considering or already budgeted for Generative AI investments, and 56% plan to train their own models.[6]

○ Even a modest investment in specific AI use cases can generate up to 6% more revenue. With rising AI investments, the revenue impact triples to 20% or more.[7]

○ **The good news: the required tools already exist** and don't necessarily need to be custom-built.

Read on to see how your org stacks up using the benchmarks below, and learn how to leverage your data and AI tools to become best-in-class.

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How We Compiled the Data

Aquant gathered and analyzed anonymized data from:

145 service organizations, including service divisions within OEMs and third-party service organizations across manufacturing, medical devices, commercial printing, industrial machinery, food service equipment, and more

More than **24 million work orders** spanning **6.6+ million assets**

Over **582,000** technicians

Nearly **$7.71 billion** in service costs

An average of **3 years of service data** per company

"None of us have the power to see the future, but with a leader's mindset, we can understand the future.

The manager asks, 'What will we do in 2030?'

But a leader proposes, 'What capabilities will we require in 2030?'

When your vision is focused and you communicate clearly with your teams, the journey will be less difficult. **And engaging with a partner that shares your vision creates a powerful transformational effect—delivering positive, disruptive change to your organization.**"

Darren Elmore,
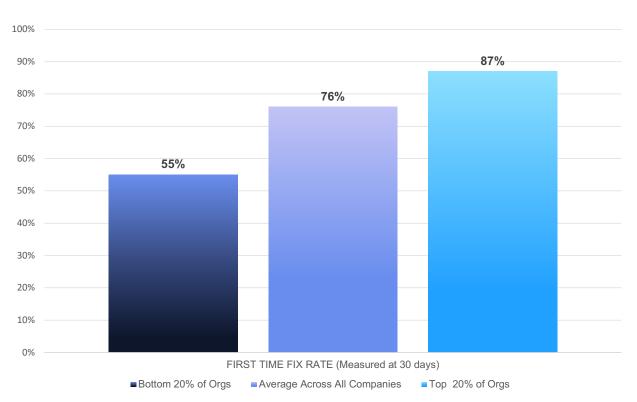GM of Service,
RICOH NZ (FS EU Amsterdam Keynote)

Part II:

Service Benchmarks Across 3 KPIs

FTFR - First Time Fix Rate

What is it?
First Time Fix Rate is one of the most popular metrics for workforce measurement. It indicates how often a technician fixes an issue on the first try.

Median First Time Fix Rate Across all Orgs in Aquant's Dataset

55%
76%
87%

FIRST TIME FIX RATE (Measured at 30 days)

■ Bottom 20% of Orgs   ■ Average Across All Companies   ■ Top 20% of Orgs

Median First Time Fix Rate (by Industry)

76%
69.1%
69.4%
77%
79.8%
71.9%

All Industries   **Medical Devices**   **Printing Industry**   **Food Equipment**   **Test & Measuring Devices**   **Industrial Machinery**

Comparing First Time Fix Rates (Measured at 30 Days) vs. the Employee Skills Gap of an Org

First Time Fix Rate (y-axis: 0% to 100%)

Percentage Difference Between Heroes and Challengers (x-axis: 0% to 100%)

Key Observations:

Best-in-class organizations, **in the top left**, have:

○ High First Time Fix Rates—typically above the industry standard.
○ Better knowledge equity—top and bottom performers have minor performance differences.
○ Lower service costs.

Tip: Examine your First Time Fix Rate from different points of view to determine your next steps.

○ **Workforce Angle:** Assess technician performance, honing in on those needing improvement. Focus on low-performing workers with the highest number of events or costs.
○ **Observation Angle:** Check out observations that require repeat customer visits. Track low First Time Fix Rates and frequent occurrences.
○ **Customer Angle:** Investigate which customers are at risk and why. Look at customers with poor experiences, understand which KPIs are the culprit, and dive into why those KPIs changed over time.

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Customer Experience Gap

The **Customer Experience Gap** shows the difference between what customers expect and what your organization delivers. Our analysis shows that companies who measure First Time Fix Rates in 7-day or 14-day windows are setting the stage for a significant experience gap, leading to frustrating customer experiences. **The moral of the story:** a few metrics can't provide the entire picture—it's time to look at the experience as a whole.

Customer Experience Index (CEI)

Key Observations:

When tracked in periods of less than 30 days, it's easy to overestimate First Time Fix Rates and underestimate Resolution Costs. Inaccuracies are created when multiple tickets related to the same issue are left ungrouped.

Additionally, keep your overall customer experience in mind. If an asset needs servicing again, even for a different issue, it negatively impacts the customer's experience.

Tip: Significant knowledge gaps result in uneven technician performance. Avoid poor customer experiences by making every service team member equally knowledgeable about your equipment and best practices.
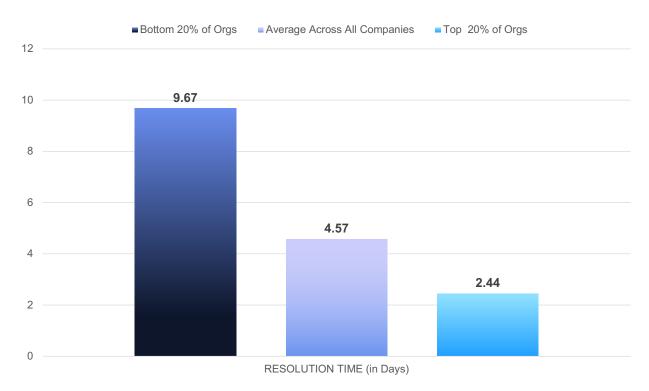
> A failed first visit leads to an average of **2.7 total visits** to resolve the service issue and adds approximately **13 days** to your Resolution Time.

Resolution Time

What is it?

Resolution Time measures the time it takes to resolve a customer issue. Typically, it's the time between the case creation and closure dates.

Legend: Bottom 20% of Orgs | Average Across All Companies | Top 20% of Orgs

Bottom 20% of Orgs: 9.67
Average Across All Companies: 4.57
Top 20% of Orgs: 2.44

RESOLUTION TIME (in Days)

Key Observations:

Bottom-performing companies take **four times longer** to resolve an issue than their top-performing counterparts.

Tip: Aim for low Resolution Time rates. Benefits include longer machine uptime, happier customers, fewer repeat visits, and higher revenues.

> "We're trying to bridge the knowledge gap. [New technicians] understand [AI] tools, but [seasoned technicians may] want to go to a technical manual and read through it to get their answers.
>
> **[We're using AI systems] to link our information and content.** It's now much easier to get answers using information already stored within our organization, assist in initial customer interactions, and solve problems faster. [We're putting] the info straight into the hands of the field service engineer—and placing the customer at the center of our decisions."

Ben Sutton,
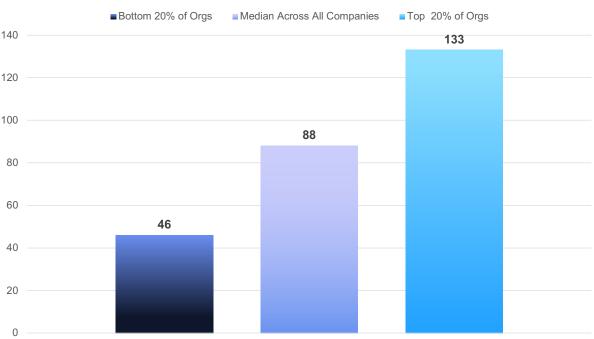Head of Global Service - Technical,
Smiths Detection

WATCH THE FULL VIDEO NOW ▶

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Time Between Visits

What is it?

Need to calculate both uptime and service performance? Look no further than Time Between Visits. This measures every visit you have for an asset or customer instead of solely tracking the time between failures. It looks holistically at the effectiveness of a company's service and maintenance visits.
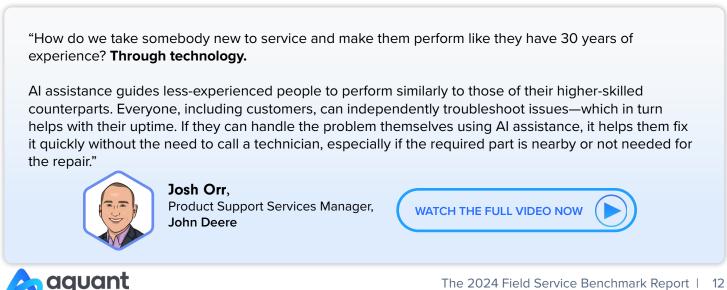

TIME BETWEEN VISITS (in Days)

■ Bottom 20% of Orgs   ■ Median Across All Companies   ■ Top 20% of Orgs

Key Observations:

On average, low-performing companies have **three times more** Visits Per Asset than top-performing companies.

Tip: Solving issues on the first visit, identifying potential problems before they occur, and performing preventive maintenance results in fewer visits to an asset, lower costs, and increased uptime.

> "How do we take somebody new to service and make them perform like they have 30 years of experience? **Through technology.**
>
> AI assistance guides less-experienced people to perform similarly to those of their higher-skilled counterparts. Everyone, including customers, can independently troubleshoot issues—which in turn helps with their uptime. If they can handle the problem themselves using AI assistance, it helps them fix it quickly without the need to call a technician, especially if the required part is nearby or not needed for the repair."

Josh Orr,
Product Support Services Manager,
John Deere

WATCH THE FULL VIDEO NOW ▶

Part III:

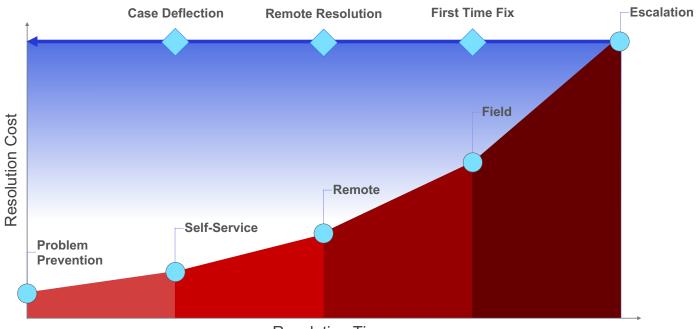# Shift Your Org's Service Delivery Left

Shift Left:
A Strategy to De-Escalate Service at Every Stage

Organizations strive to fix issues correctly the first time. Many seek ways to deflect truck rolls by increasing first-call resolution, solving more problems remotely, or implementing customer self-service options.

Repeat visits, referred to as service failures or recurring issues, are measurably detrimental to service organizations because:

- They require additional money, resources, and effort.
- Costs related to parts, labor, and travel increase significantly with each escalation.
- Frontline technicians can feel demoralized—leading to high turnover, disengagement, and impacted service quality.
- Inefficient workforces handle fewer cases.

Enter the **Shift Left Method**, a concept that savvy service orgs are using to resolve service issues with speed and efficiency. It involves leveraging data to strategically identify the areas within your org where you can make quantifiable impacts that improve your bottom line. Whether that means identifying truck rolls that could've been resolved remotely, or even turning simple calls into a self-service experience, shifting left is all about moving the resolution closer and closer to the end customer. That way, they won't even need to contact the service organization directly unless absolutely necessary.
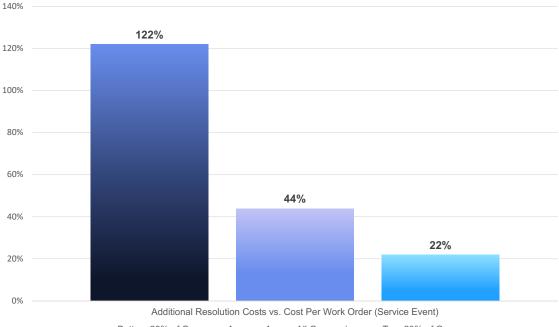

Tip: Shift your service delivery left to identify unnecessary truck rolls and reduce repeat visits.
Get started in six easy steps!

At Aquant, we help our clients identify areas where they can **de-escalate the resolution process** by:

- Finding ways to reduce escalations and improve First Time Fix Rates.
  - Improve diagnostics rate by adopting AI tools built to identify and deploy the right solutions.
  - Minimize parts shotgunning, a method where technicians repeatedly replace different machine parts across multiple visits, hoping one of the new components will resolve the issue eventually. This practice is often done with little to no prior troubleshooting, usually by inexperienced technicians.
  - Identify truck rolls that could have been avoided with remote resolution fixes.
- Rethinking how tasks, decisions, and issue resolutions are handled to deliver more efficient, responsive, and customer-centric services
  - For example, train call center reps to troubleshoot customer problems—or measure success using key metric combinations like First Time Fix Rate, phone fix rates, self-service cases, etc).
- Strategically leveraging data and identifying focus areas for improvement that make a quantifiable impact on the most important KPIs.
- Enabling customers to quickly access critical information so they can resolve issues via links on your website or app.
- Helping highly skilled technicians make their expertise and insight more available to less-experienced colleagues.

Additional Resolution Costs vs. Cost Per Work Order (Service Event)

■ Bottom 20% of Orgs ■ Average Across All Companies ■ Top 20% of Orgs

What happens if a service issue isn't solved on the first visit? On average, the Resolution Cost ends up being 44% more than the Cost Per Work Order!

Cost Per Work Order measures rates for materials, labor, and more per job. Resolution Cost measures the dollar amount needed to close a service ticket, considering multiple visits and truck rolls, various parts, and labor costs.

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Part IV:

The Workforce Skills Gap

The data shows that the skills gap—also known as the knowledge gap—is one of the most significant barriers that prevent companies from achieving their business goals.

The skills gap refers to the difference between the skills an employer expects their employees to have and the skills that the employees actually possess.[8] This disparity exists for many reasons: for example, some employees may lack years of experience, while others may not have been adequately trained.

The skills gap is also expensive. On average, an organization's lowest-performing employees can cost **80% more** than the top-performing employees—but those expenses can be even higher in the lowest-performing organizations.

Where does your organization fall?

If the cost gap between your top and bottom performers is:

Up to 34%:

You are in the **green**. There are opportunities to transfer workforce knowledge across all employees, but you are among the highest-performing organizations.

Between 35%-79%:

You should be **cautious**. At this rate, the cost differences make a more significant impact on your bottom line, resulting in moderately uneven customer service.

80% and above:

Your organization is in the **red.** You have an enormous cost gap within your workforce. If you dig deeper into organizational-wide performance, you will likely find chronic issues such as substandard First Time Fix Rate, parts shotgunning, poor or uneven customer service experiences, low NPS, and higher-than-average employee dissatisfaction and turnover rates.

Tip: Find ways to democratize knowledge and give everyone access to the best answers to every service challenge. These methods reduce onboarding time for new employees and upskill every workforce member.
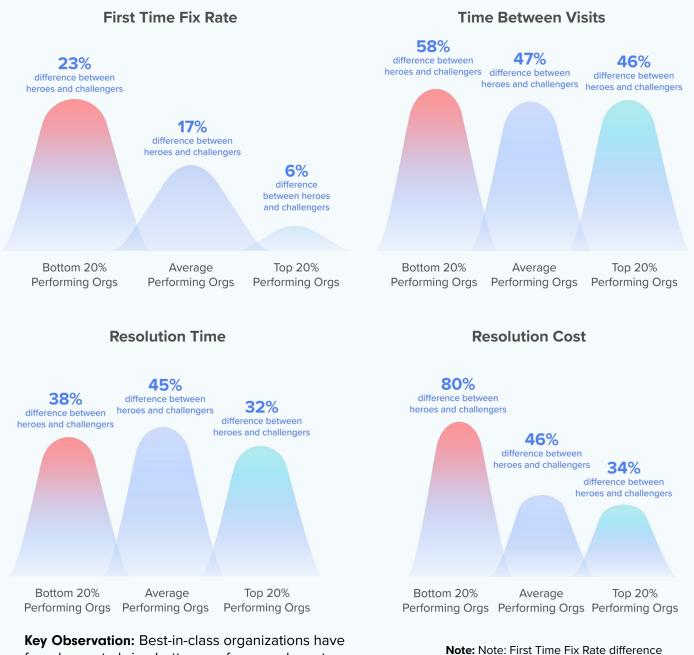
A Snapshot of High-Performing and Low-Performing Organizations

Higher-performing organizations have a better distribution of knowledge among employees.

Did you know?

If everyone had the knowledge and skills to perform like the top 20% of the workforce, service costs would be reduced by as much as 22%.

First Time Fix Rate

23%
difference between heroes and challengers

17%
difference between heroes and challengers

6%
difference between heroes and challengers

Bottom 20% Performing Orgs

Average Performing Orgs

Top 20% Performing Orgs

Time Between Visits

58%
difference between heroes and challengers

47%
difference between heroes and challengers

46%
difference between heroes and challengers

Bottom 20% Performing Orgs

Average Performing Orgs

Top 20% Performing Orgs

Resolution Time

38%
difference between heroes and challengers

45%
difference between heroes and challengers

32%
difference between heroes and challengers

Bottom 20% Performing Orgs

Average Performing Orgs

Top 20% Performing Orgs

Resolution Cost

80%
difference between heroes and challengers

46%
difference between heroes and challengers

34%
difference between heroes and challengers

Bottom 20% Performing Orgs

Average Performing Orgs

Top 20% Performing Orgs

Key Observation: Best-in-class organizations have found ways to bring bottom performers closer to expert-level workers in all KPIs.

Note: Note: First Time Fix Rate difference refers to actual percentage points difference.

A Snapshot of Individual Technicians

See performance trends across the entire workforce on an individual level.

Key Observation: While First Time Fix Rate among technicians remains stagnant, the cost difference between top and bottom performers continues to rise.

TOM — HERO

FIRST TIME FIX RATE:
81%

RESOLUTION TIME:
3.7 Days

GREG — CHALLENGER

FIRST TIME FIX RATE:
64%

RESOLUTION TIME:
5.9 Days

Hero vs. Challenger Performance: At a Glance

Time Between Visits

112 Days

54 Days

Overall Average: **86 Days**

First Time Fix Rate

81%

64%

Overall Average: **74%**

Overall Average: **4.5 Days**

Resolution Time

3.7 Days

5.9 Days

Top Performers
Bottom Performers

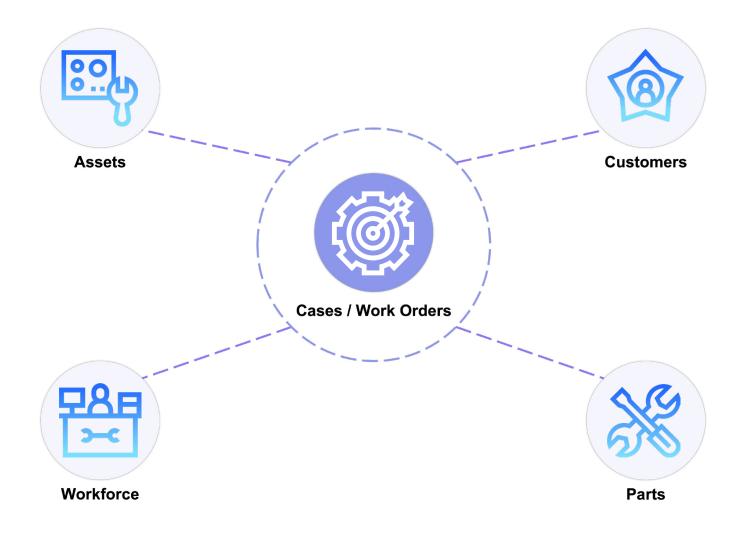All differences between heroes and challengers are shown in percentage points.

Key Observation: Here's another example of what the customer experience gap looks like when comparing First Time Fix to overall Resolution Time. Remember, your customers aren't concerned with what your internal stats say about First Time Fix Rate. **Their main concern is how long it takes to solve the problem.**

Part V:

Data Cleanliness and Maintenance Hold the Key to Performance Improvements

To make high-impact transformations, you need to track your KPIs. And to track KPIs, you need to get your data in order.

On the road to becoming best-in-class, many organizations realized they were not tracking KPIs as strictly as needed. This prompted them to dig deeper to see where the disconnect was.

Assets

Customers

Cases / Work Orders

Workforce

Parts

Blending quantitative and qualitative data from multiple sources will give you a complete picture of your organization's landscape. Feel free to get granular. Unstructured data from work orders, machine logs, customers, technicians, and parts can all be aggregated and later processed by AI.

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When you understand the big picture of your service org's landscape, you can see how each piece fits together, where gaps exist, and decide how to address them. And when you're aware of your org's performance, you can create an action plan that maximizes efficiency, productivity, and growth.

It is essential to invest in regular reviews of performance, as well as in tools and technologies that can help you capture data and analyze it. With the correct data and analysis, you can fully understand your business, prioritize the next steps, create a successful strategy, and achieve a high impact.

Internal Aquant research has shown that 30% of service solutions are not found in historical service data. Instead, the knowledge of veteran service experts contains the best answers.

The great news is that you can start wherever you are with your data. It doesn't have to be perfect by any means—and the more varied sources you allow it to ingest from, the better. Remember, the quality of your AI outputs is as excellent as you make it—so input whatever data you have to start, then commit to refining your AI outputs to get better answers each time.

Data and AI are the future; together, they will drive your service to the next level.

Part VI:
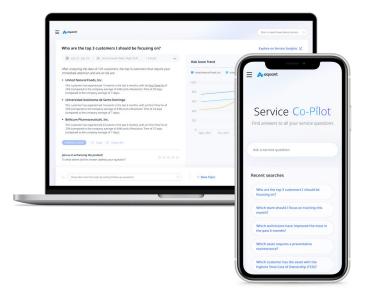
Start Your Journey to Service Excellence

Next Steps

Curious about how your org stacks up against the benchmarks outlined in this report?

Participate in Aquant's [7 Day Challenge](#) to find out — at no cost to you.

Our analysts will process and analyze your data via Aquant's robust AI engine. We'll show you the results of your org's key metrics (including First Time Fix Rate), how you can be more efficient, and where you can save money.

Use your data to uncover the biggest opportunities for performance improvement and see how Shifting Left can help your org stay ahead of the competition.

LEARN MORE

Footnotes:

1. **2023 Global Talent Shortage Survey**, The Manpower Group

2. **The Number of Older Workers in Growing Quickly**, Congressional Joint Economic Committee Report, December 2022

3. **Technology Field Service Organizations Face Challenges with a Retiring Workforce**, Field Nation Report via TSIA Survey, 2021

4. **Survey Reveals Top 5 Challenges for Field Service Leaders in 2023**, Aquant, February 2023

5. **Deloitte Digital's '2023 Global Contact Center Survey' Reveals New Realities Driving Transformation of Contact Center Operations**, Deloitte Consulting, May 2023

6. **Beyond the Gen AI Hype: Real World Investments, Use Cases, and Concerns**, Enterprise Strategy Group, August 2023

7. **Scaling AI Pays Off, No Matter the Investment**, Boston Consulting Group, January 2023

8. **The Skills Gap, Explained**, Business Roundtable, 2018

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Aquant offers generative AI purpose-built for service through its Service Co-Pilot platform. Whether you're a service leader, field technician, customer service representative, or customer, this platform is designed to offer expert guidance for all participants involved in the service lifecycle, ensuring optimal decision-making at each stage. Service Co-Pilot continuously refines its capabilities by learning from real-world service data, expert insights, and user feedback. This dynamic approach enables the engine to generate the most accurate and personalized recommendations for every query, throughout every phase of the service cycle. Learn more about Aquant here: **www.aquant.ai**.